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Revised Edition

Warren's Common-School Geography



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WARREN'S SERIES OF GEOGRAPHIES

I Warren's Primary Geography

II Warren's Common-School Geography; *or*, Warren's Brief Course in Geography

III Warren's Physical Geography

THIS SERIES is now thoroughly revised, giving full accounts of the recent changes and discoveries. It presents a complete Geographical Course, adapted to all grades of Schools, and is the most Compact and Economical Series published.

Warren's Primary Geography is now presented in a new dress, with new type, new electrotypes plates, new illustrations, and a complete set of new maps, and a larger page. Part I. presents the elementary principles of Geography in a series of oral lessons adapted to the capacity of young beginners; while in Part II. a brief general description of all the countries upon the globe is given.

Warren's Common-School Geography is in itself a complete manual upon the subject, and is intended for use in cities and graded schools. Two important features in which this work excels all others are:

1. The Philosophic System, in which physical geography is made the basis of political geography. The dependent relation of these two branches of the science is kept constantly in view, developing an arrangement that is uniform and consistent throughout.

The masses of land and water; their relations to one another, and the variations and influences of climate, vegetation, etc., are carefully considered, in order that it may appear to what extent the phenomena of nature control the affairs of man.

2. The General Presentation, at the outset, of the Physical Features of each Country—its mountain and river systems, its plateaus, slopes and climate—and the constant application of these facts to illustrate the details that follow.

Warren's Physical Geography is designed for advanced classes in Academies, Seminaries, Normal and High Schools. This book has met with the cordial approval of instructors everywhere, and is in general use throughout the country. The latest edition contains a chapter upon the System of Weather Reports and "Probabilities."

Warren's Brief Course in Geography is intended as a shorter course for those who have not time for a more extended study of the subject. Its peculiar feature of providing maps relieved of all unnecessary detail, and containing only what is needed for a comprehensive survey of geography, has given it such great popularity that successive editions have made the preparation of a new set of plates a necessity. Advantage has been taken of this opportunity to make a complete set of new maps containing all the latest discoveries and changes.

The Maps in the body of the work are designed only for use in schools; therefore none but the leading towns and most important features are given, and *nothing is represented on the Maps which is not referred to either in text or question in some part of the book.*

A set of valuable Reference Maps is given in the last part of the book. These are carefully engraved on copper, and contain much more detail than would be suitable for the study-maps.

A special feature of these Geographies is a Vocabulary at the end of each book giving the meaning, or derivation, of many of the names, and the pronunciation of the more difficult words.

These Geographies have been introduced and are now used in many of the best public and private schools in all parts of the country—receiving the warm approval of those teachers who have made themselves acquainted with their merits. Teachers and school officers are respectfully requested to examine these works before determining on the text-books on the subject of Geography to be used in the schools under their charge.

P R E F A C E

IN no department of school literature has more activity been manifested during the past few years than in the preparation of text-books in geography, yet, notwithstanding the numerous competitors for public favor that have appeared, the popularity of this work remains unabated.

Many of the plates from which the book is printed having become worn by constant use, the publishers decided to prepare an entirely new set, introducing many fresh illustrations and embodying the latest improvements in typography.

Advantage has also been taken of this opportunity to thoroughly revise both the text and maps; to compare them with the latest authorities both at home and abroad; and to make such alterations and additions as were needed to make the book as nearly perfect as possible in every respect.

Carefully prepared and beautifully engraved physical maps of the Grand Divisions and of the United States have been added, which show the relief and structure of the country, its mineral resources, its various forms of animal and vegetable life, and the depths of the bodies of water which it includes, or by which it is surrounded. Appropriate explanatory text and systematic questions upon physical and commercial geography accompany these maps.

The book consists of two parts:

In **Part I.** a General View of the Globe is first given,—its **FORM**, its **MOTIONS**, its **DIVISIONS BY CIRCLES**, **DAY AND NIGHT**, and **LATITUDE AND LONGITUDE**.

Next the subjects of Physical Geography are presented in the following order: 1. **OUTLINE AND RELIEF OF THE LAND-MASSSES**:—2. **WATER-MASSSES OF THE EARTH**, OCEANS, RIVERS, &c.;—3. **THE ATMOSPHERE AND CLIMATE**;—4. **PRODUCTIONS, MINERALS, VEGETATION, ANIMALS, MEN**.

The Outlines of the Continental Masses determine the shape of the Oceans and their Divisions, and the character of their surface directs the course of the rivers: hence the study of the land immediately precedes that of the water.

Then follows the study of the Atmosphere and Climate, since the latter is largely governed by the position and relief of the land, and the contiguity of the water.

The character of the Productions, is next considered, as the Vegetation and Animals are dependent upon the climate, and man, receiving influences from all the phenomena of nature, occupies the last and most important place.

Last in order are treated the Political Principles that exercise control in the government of man, the Religion that regulates his life, and the different occupations in which he is engaged.

These general principles form the basis of Geographical study; and the pupil is expected to thoroughly master them and understand their connection before proceeding to Part II.

In **Part II.** the general principles that have been established in Part I. are applied, so as to give uniformity of arrangement to the

text and to the grouping of the Map Questions: thus, in the description of a country, the outline and surface of the land, its lakes and rivers, climate, vegetation, and inhabitants, are presented in succession.

The pupil is also led, by means of carefully arranged questions, to apply the principles he has learned in Part I. to the special Phenomena of each country.

Thus an arrangement is obtained throughout the work, which is not only convenient for memorizing, but one which also binds the whole together in a unity of idea and orderly succession of parts.

The physical map of a country, invariably precedes the text, while the political map always follows it. The map questions, in every case, face the map, so that no turning of the leaves is necessary in finding the answers. By this arrangement, the final page of questions is made to combine a review of the physical features and of the text with the study of the map. The pupil is thus enabled to understand the Commerce of the Country while studying the political map, since he has previously learned the character of its productions and manufactures from the physical map and text.

Interspersed with numerous direct questions upon the text and maps, are many inductive and highly suggestive questions, which require the pupil to apply the general principles previously learned to the phenomena of each succeeding country. Thus thought is awakened and the imagination quickened, relieving the study of Geography of that parrot-like memorizing which prevails in many Geographical works.

The Style of the Text is concise, clear and familiar, but not childish. The leading statements to be memorized are printed in large open type, while much matter that may be carefully studied by the pupil, and used as the basis of oral instruction by the teacher, is given in smaller type: thus obviating the objection made to most text-books on this subject, that they contain too much matter to be committed to memory.

Two Commercial Maps are given, with accompanying text and questions,—one of the United States and one of the world,—explaining the Inland and Coasting Trade of our own country, and showing the Currents of the Oceans, the Prevailing Winds of the different zones, and the leading exports of the various countries of the globe.

Miscellaneous Questions are introduced, at the close of the pages of map questions, as partial reviews; and a page of carefully prepared general review questions is given on page 118.

The Pronouncing and Explanatory Vocabulary; the Statistical Tables; and the Treatise on Map Drawing, in the last part of the book, will be found more comprehensive and valuable than those usually given in similar works.

Acknowledgments are due to many prominent educators for important suggestions; especially to Prof. Wm. H. Brewer, of Yale College, the late Miss Lucretia Crocker, Supervisor of Schools, Boston, and Miss C. E. Bush, of the Virginia State Normal School.

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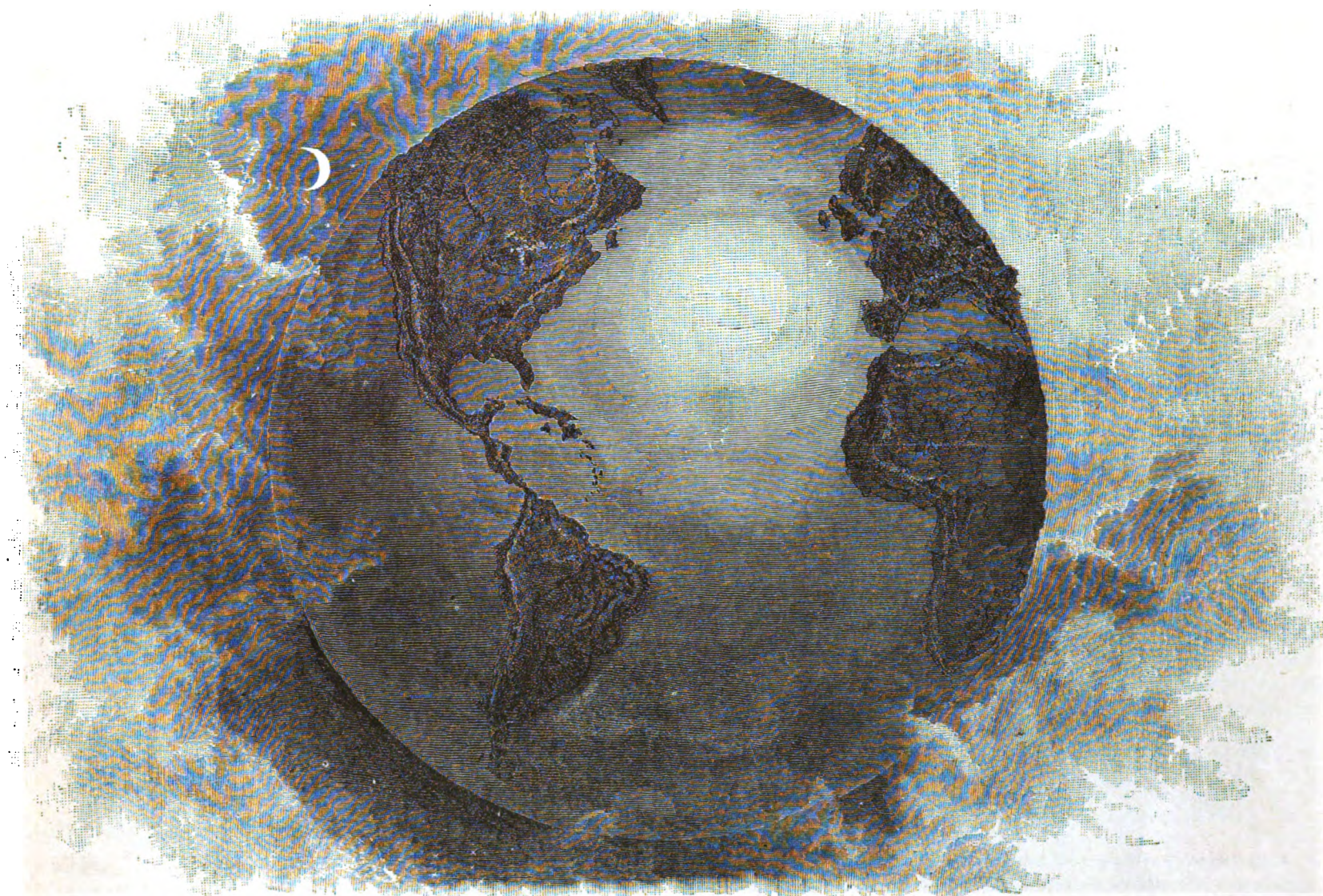
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THE COMMON-SCHOOL GEOGRAPHY



PART I

GEOGRAPHY is a description of the earth. The term is derived from two Greek words, signifying "the earth," and "to describe." Geography may be divided into three departments:—*Mathematical, Physical, and Political Geography.*

MATHEMATICAL GEOGRAPHY

MATHEMATICAL GEOGRAPHY treats of the form, size, and motions of the earth; of its division by circles for the purpose of determining the position of places on its surface; and of the representation of its surface upon globes, maps, and charts.

FORM OF THE EARTH.

THE EARTH is nearly round like a ball, a sphere, or a globe. It is sometimes called **The Globe.**

The earth is not perfectly round, but, like an orange, is flattened on two of the opposite sides; not nearly so much, however, in proportion to its size, as an orange. In any representation of the earth, such as an artificial globe, the difference between its real form and that of a globe would be too small to be seen.

2. Mountains and valleys do not perceptibly affect the form of the earth. The highest mountain in the world is not so large, in proportion to the size of the earth, as a grain of sand upon the surface of an ordinary globe.

3. The earth does not appear to us like a globe. When we are upon the ocean, or upon an extensive plain, where there are no mountains and valleys, it seems flat, like the top of a round table.

This is because we see so little of it at a time. To an ant crawling over an artificial globe the surface probably appears perfectly level; but we see so much of the wooden globe at once that we know its true shape.

So a tall man standing in the centre of an extensive plain sees only about three miles around him, and is therefore in a condition similar to that of the little ant upon the wooden globe. If he could at one time see as much of the earth proportionally as he can of the wooden globe, it would appear to him to be what it really is, a great globe.

4. Proofs that the Earth is round.—1. The tops of the masts or sails of a vessel at sea are always seen at a greater distance than the hull, and when vessels approach the land, the mountains, hills, or highest portions near the shore are first seen from the vessel.—2. It has often been circumnavigated, or sailed around.—3. The shadow of the earth when cast on the moon is always circular.

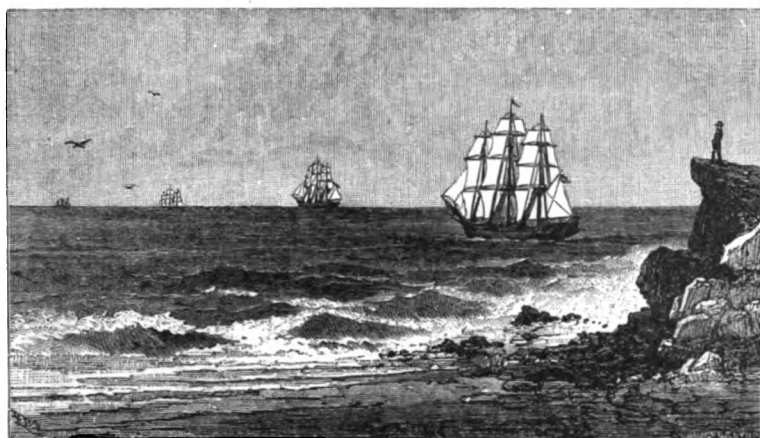


ILLUSTRATION OF ONE OF THE PROOFS THAT THE EARTH IS NEARLY ROUND.

The gradual appearance of the ship above the horizon (or line where the sea and sky seem to meet), proves that the surface over which she is sailing is curved,—as in the following representation:



A man standing on the ground sees the whole of the first ship, the masts of the second, and the top of the main-mast of the third; the fourth is out of sight. As the curve is found to be nearly the same in all parts of the world, whether sailing north or south, east or west, we conclude that the earth is shaped like a globe.

[NOTE.—Nations claim jurisdiction at sea to the extent of one league, or three miles from land, that being the distance a man can see the water from the shore.]

Questions.—What is Geography? From what is the term derived? Into what three departments is Geography divided? What is Mathematical Geography? What is the form of the earth? Is it perfectly round? Why are not artificial globes flattened at the top and bottom, if such is the shape of our earth? If you were to scatter a few grains of sand on a wooden globe, would it still appear round? Why then do not mountains affect the form of the earth? What distance can a tall man, on a level plain, see around him? Is the plain on which he stands perfectly level, or slightly curved? Does it appear to him to be curved? State one of the proofs that the earth is round.

MOTIONS OF THE EARTH.

THE EARTH has two motions: a daily rotation (or turning around) upon its *Axis*, and a yearly revolution around the sun.*

The axis of anything is that upon which it turns, or may turn. Thus, the axle-tree is the axis of a wheel. Pass a wire through the centre of an orange, from the

* Astronomers take account of several other comparatively slight motions of the earth, but these two are all that are usually considered by geographers.

stem to the opposite point, and then make the orange revolve on the wire: the wire is the axis of the orange.

So the earth revolves or "rotates" upon its axis. Yet the axis of the earth is not a reality, it is only an *imaginary* line, passing through the centre of the earth. The ends of this line are called the *Poles* of the earth. One is called the *North Pole*; the other, the *South Pole*.

2. The Daily Motion.—The earth is constantly turning on its axis from west to east, and this movement is called the *Rotation upon its Axis*. It takes twenty-four hours, or one day, for each complete rotation.

It seems to us, however, as if the earth were stationary, and as if the sun, moon, and stars were moving around towards the west. This delusion arises from the fact that the motion of the earth is so steady and uniform that we do not perceive it.

3. Some parts of the earth, in its daily rotation, move at the rate of more than a thousand miles an hour.

At the Poles the motion is very slow; but midway between the Poles, the velocity is so great that if we could be lifted up far above the earth at that place, and suspended there, the mountains, seas, and islands below, would be rushing by us with such amazing rapidity, that we should not be able to distinguish one object from another. But as we are now moving with the earth and at the same rate, we do not perceive its motion.

4. The rotation of the earth upon its axis produces the succession of Day and Night—every place upon its surface being, alternately, in sunlight and in darkness.

Questions.—How many motions has the earth? What is an axis? Has the earth a real axis, like a wheel? What are the Poles? Are they real or imaginary points? What is the daily motion of the earth? How many hours does it take for the earth to rotate upon its own axis? Does this motion ever cease? Why does it seem to us that the earth is stationary, and that the sun moves around it towards the west? How many miles an hour do some parts of the earth move in its daily rotation? What parts are they? What causes the succession of day and night?

MOTIONS AND SIZE OF THE EARTH.

THE daily rotation of the earth determines the points *East*, *West*, *North*, and *South*.

The earth is constantly turning round from west to east, towards the sun. The direction from which the sun appears to rise is called *East*; where it sets, *West*.

If you stand with your right arm extended towards the East, and your left hand towards the West, the *North* will be before you, and the *South* behind you.

2. These directions are called the Points of the Compass.



The compass is an instrument which has a magnetic needle attached to it. This always points to the north, or nearly to the north. The compass is used by surveyors, and by mariners to tell the direction in which their vessels are sailing. Beside the four principal points, there are four other important ones, North-east, North-west, South-east, and South-west. N. stands for North, N. E. for North-east, N. W. for North-west, S. E. for South-east, and S. W. for South-west.

3. Motion of the Earth around the Sun.—The earth moves around the sun in a nearly circular path, called its *Orbit*, in 365½ days, or one year. This is called the *Annual*, or *Yearly Motion*.

Over this course, a length of upwards of 567 millions of miles, the earth moves with a velocity of more than a thousand miles in a minute.

4. The annual revolution of the earth around the sun is one of the causes of the change of seasons, known as Spring, Summer, Autumn, and Winter.

5. The **Circumference** of the earth is the distance around it. The **Diameter** is the distance in a straight line through its centre, between any two opposite points on the surface.

6. The circumference and diameter vary in length, in different parts of the globe.

Since the earth is flattened at the Poles, and expanded in the middle, its circumference and diameter are greater, midway between the Poles, than anywhere else.

7. The greatest circumference of the earth is about 25,000 miles, and the greatest diameter about 8000 miles. The diameter of the earth, from Pole to Pole, is 26 miles less than midway between the Poles.

Questions.—How is sunrise caused? Does the sun *really* rise? What is that point called at which the sun appears to rise? What are the other principal points of the compass? How long does it take the earth to make its annual revolution around the sun? Does it stop after having completed its yearly course? What is the form of the earth's orbit? How fast does the earth move around the sun? Which is the more rapid; the motion of the earth around the sun, or its revolution upon its own axis? What is caused by the annual revolution of the earth? What do you understand by the circumference of the earth? By its diameter? Where is the circumference greatest? How long is the greatest diameter? The shortest?

DIVISION OF THE EARTH BY CIRCLES.

FOR CONVENIENCE in fixing and describing the location of places upon the earth, its surface is divided by imaginary circles. They are the Equator, Parallels of Latitude, Meridian Circles, and the Tropical and Polar Circles.

2. A **Circle** is a curved line every point of which is equally distant from the centre. Every circle is divided into 360 equal parts, called degrees.

[NOTE.—The term *circle*, as used in Geography, means, strictly speaking, the circumference of a circle.]

3. A **Great Circle** is one that divides the surface of the globe into two *equal* parts, each of which is called a **Hemisphere**,—that is, half a sphere or globe.

Each degree of a great circle is equal to 60 geographical miles, or about 69½ English miles.

4. A **Small Circle** is one that divides the surface of the globe into two *unequal* parts.

The length of a degree of a small circle varies with the size of the circle.

5. The **Equator** is a great circle extending round the globe half-way between the Poles.

6. **Parallels of Latitude** are small circles drawn round the globe parallel to the Equator.

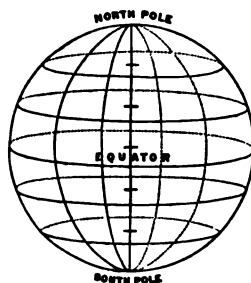
The Equator and the parallels are represented on maps by lines running across them from east to west.

7. The **Horizon** is the boundary-line of our circle of vision, where the earth and sky seem to meet.

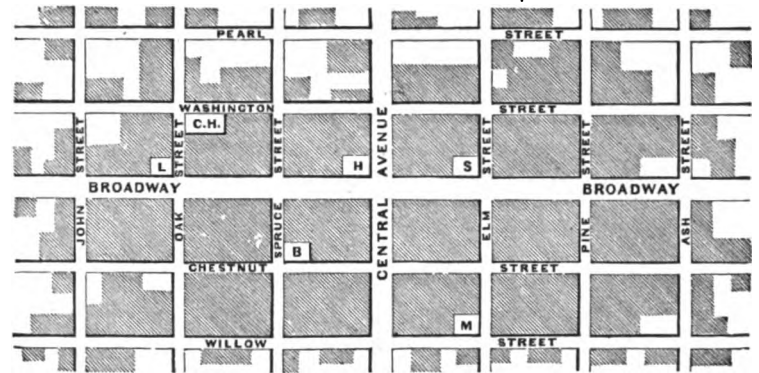
8. The **Zenith** is the point in the heavens directly overhead.

9. **Latitude** is distance from the Equator, either north or south.

Latitude is reckoned in degrees instead of in miles, and is measured on great circles; hence the length of a degree of latitude is nearly the same in all parts of the earth. Ninety degrees are north, and ninety south, of the Equator. All places north of the Equator are said to be in **North Latitude**; all south of it, in **South Latitude**.



Places near the Equator are said to be in **Low Latitudes**; those near the Poles in **High Latitudes**. Degrees are numbered on the sides of maps. The numbers increase from the Equator towards the Poles, from 0 to 90°. If the numbers increase from the bottom towards the top of the map, the section represented is in North Latitude; if from the top towards the bottom, the section is in South Latitude.



Suppose a city, with streets crossing each other at right angles, like the lines in the above representation:—

Ash Street runs north and south; Willow Street runs east and west. Now, if a stranger should ask you to direct him to the Court House (marked C. H.), all you have to do is to say it is on the third street north of Willow Street, and on the fifth street west of Ash. The stranger could find it at once, and thus you might direct him to any part of the city.

Tell me, in the same way, where the State House is (S.); the Market (M.); the Public Library (L.); the City Hall (H.); the Savings Bank (B.). In what direction is the State House from the Market? The Market from the Library? The City Hall from the State House? The Savings Bank from the City Hall? The Market from the State House?

Thus, if you could draw a set of lines on the earth's surface, running east and west, and another set running north and south, you could fix the position of places without any difficulty, and ascertain their direction from each other. This is precisely what is done by the lines of latitude and longitude; although they are not *real*, but *imaginary* lines.

Questions.—Name the circles which divide the surface of the globe? What is a Circle? How is every Circle divided? What is a Great Circle? What is a Hemisphere? How long is a degree of a great circle? What is a Small Circle? What is the Equator? Define Parallels of Latitude. What is the Horizon? What is the Zenith? What is Latitude? On what circles is it measured? How many degrees of North Latitude are there? How many of South? If a place is said to be in ten degrees of North Latitude, on which side of the Equator is it? If you are told that a place is in the thirty-third degree of South Latitude, how far, and in what direction, is it from the Equator?

DIVISION OF THE EARTH BY CIRCLES.

MERIDIAN CIRCLES are great circles, encircling the earth from north to south, and passing through both Poles.

2. A **Meridian** is half of a meridian circle, or a line extending half round the earth from the North to the South Pole.

The meridians are represented on maps by lines running across them from north to south.

3. **Longitude** is distance, east or west, from a given meridian, which is called the First Meridian.

Longitude, like latitude, is reckoned in degrees, but being measured on the Equator and on parallels, the degrees vary in length, growing smaller as we approach the poles. The length of a degree on the Equator is nearly the same as that of a degree of latitude. On the 20th parallel it is 65 miles; on the 40th parallel it is 53 miles; on the 60th parallel it is 34 miles; and on the 80th parallel it is 12 miles.

The Equator is the line universally agreed upon from which to reckon latitude; but no such line has been agreed upon by different countries from which to

compute longitude. The English reckon from the meridian of Greenwich, near London; the French, from that of Paris. In the United States we commonly adopt the meridian of Greenwich; though longitude is often computed from that of Washington.

The meridian which passes through Greenwich is marked with a cipher (0). There are 180 degrees of East, and 180 degrees of West Longitude. All places east of the meridian of Greenwich are in East Longitude; all places west of it, in West Longitude.

These degrees are numbered on the top and bottom of maps, or upon the Equator. If the numbers increase from the left towards the right of the map, the section represented is in East Longitude; if from the right towards the left, it is in West Longitude. On globes and maps, the meridians and parallels are generally either curved or slanting. In finding the direction, therefore, of one place from another, you must follow the course of the line of longitude or latitude.

4. Parallels of Latitude and Meridian Circles.—These circles enable us to ascertain the position of places, and their distance and direction from each other.

5. Those who live on the same meridian have their noon or midnight at the same moment. Those who live on the same parallel have the same length of day, and the same length of night.

6. Antipodes are those who live on exactly opposite sides of the globe.

Questions.—What are meridian circles? What is a meridian? How are meridians marked on maps? What is longitude? On what is it measured? How does the length of degrees of longitude vary? What do you mean by first meridian? Do all nations reckon longitude from the same meridian? What meridian is generally adopted in the United States? How can you tell whether a place is in East or West Longitude?

How is the meridian of Greenwich marked on the map? Suppose you should follow that meridian from the Equator to the South Pole: in what direction would you go? In following the same meridian to the North Pole, in what direction would you go? Of what use are parallels and meridians? What places have noon at the same time? What places have the same length of day and of night? Define antipodes.

ZONES.

THE hottest part of the earth is in the vicinity of the Equator, for the sun is more nearly overhead there, throughout the entire year, than in any other part of the globe. Going from the Equator toward the Poles, the climate constantly grows colder. On account of these differences in temperature, the surface of the earth is divided into five distinct **Zones** or **Belts**.

The *Torrid Zone* extends about $23\frac{1}{2}$ degrees of latitude on each side of the Equator. The *Frigid Zones* extend around each Pole for nearly $23\frac{1}{2}$ degrees from it: one is the *North Frigid*—the other the *South Frigid Zone*. The *Temperate Zones* are between the *Torrid* and *Frigid Zones*: one is the *North Temperate*—the other, the *South Temperate Zone*. The *Temperate Zones* are each a little more than 43 degrees wide.

2. The Tropical Circles are those parallels of latitude which mark the boundaries of the *Torrid Zone*. The northern is the *Tropic of Cancer*; the southern, the *Tropic of Capricorn*. The countries between these circles are called tropical countries. The *Polar Circles* are those parallels of latitude which mark the boundaries of the *Frigid Zones*. The northern is the *Arctic*: the southern the *Antarctic Circle*.

3. The Seasons.—During the earth's annual course around the sun, the seasons change, in the *Temperate Zones*, from winter to spring, from spring to summer, from summer to autumn, and

from autumn to winter. The seasons in the Northern Hemisphere occur at opposite periods to those in the Southern.

4. The Frigid Zones have but two seasons—a long, cold winter, and a short summer.

Winter and summer succeed each other so rapidly that spring and autumn are hardly perceptible. While it is summer in the North Frigid, it is winter in the South Frigid Zone.

5. The Torrid Zone has two seasons—the wet, and the dry.

It has no winter and summer, properly speaking. The dry season, in the northern half of the *Torrid Zone*, continues from October to April. During this time it is the wet season in the southern half. The wet season of the northern part continues from April to October; during this period it is the dry season in the southern portion. The wet season corresponds to summer and the dry season to winter.

6. The Temperate Zones have four seasons—*Spring, Summer, Autumn, and Winter*.

While it is spring in the North Temperate, it is autumn in the South Temperate Zone; and when it is summer in the North Temperate, it is winter in the South Temperate Zone.

Questions.—Where do we find the hottest part of the earth? Why is the heat so great in that vicinity? What change is observed in passing from the Equator to the Poles? How many zones are there? How many seasons have the *Frigid Zones*? How many the *Temperate*? The *Torrid*? When it is summer in the North Frigid Zone, what season is it in the South Frigid? When it is winter in the North Temperate Zone, what season is it in the South Temperate? When it is the dry season in the southern half of the *Torrid Zone*, what season is it in the northern half?

In what months is the dry season in the northern half of the *Torrid Zone*? The wet season? What are the months of the wet season in the northern half? In the southern? What season is it now in the North Temperate Zone? In the South Temperate?

DAYS AND NIGHTS.

THE length of the days and nights is not the same in all parts of the world.

2. In the Torrid Zone, the days and nights are of nearly equal length throughout the year—that is, about twelve hours each.

At the Equator they are more nearly equal than anywhere else throughout the year. Leaving the Equator, the length of the days and of the nights becomes more unequal; and this inequality increases as we advance towards the Poles.

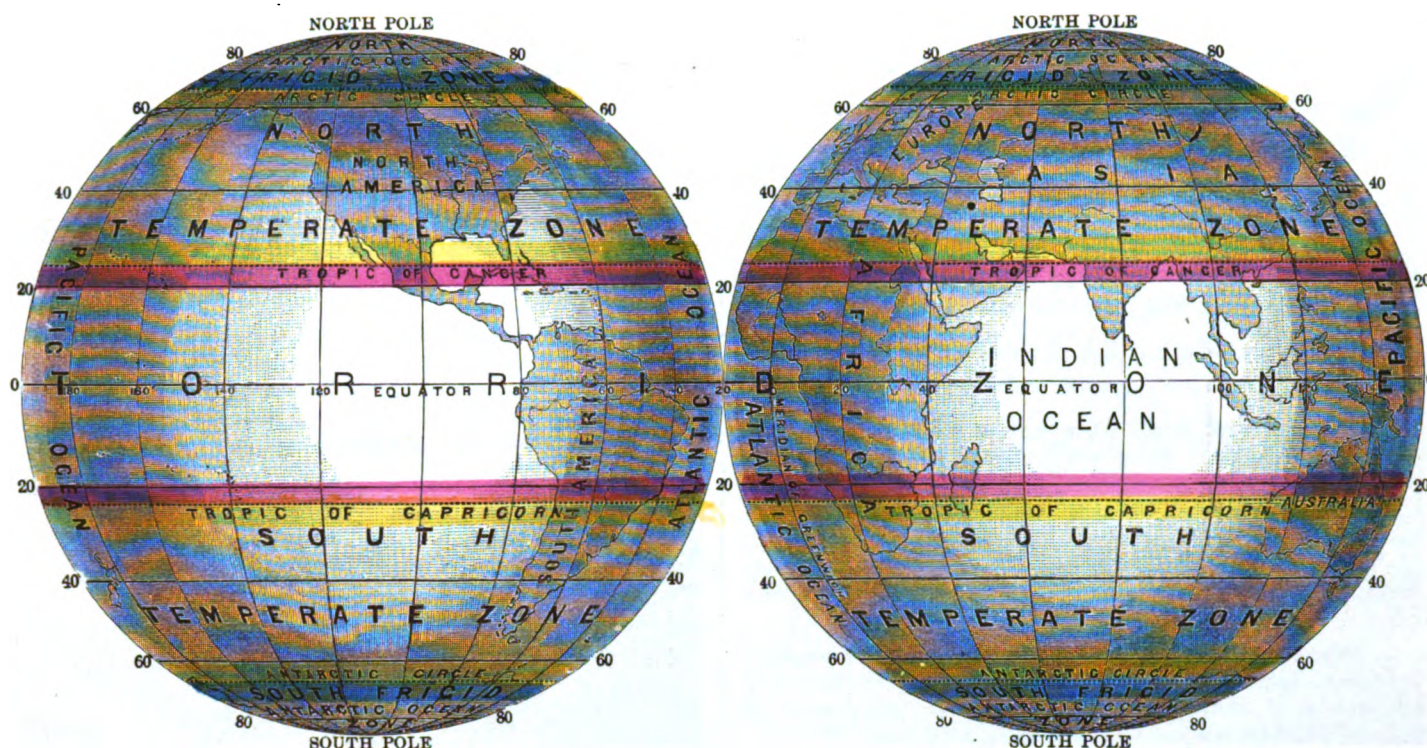
3. In the Temperate Zones they are of very unequal length—the days in summer being more, and the nights less, than twelve hours; while in winter the days are shorter, and the nights longer, than twelve hours.

This inequality increases towards the Polar Circles, which are the limits of the *Temperate Zones*. On June 21st at the Arctic Circle and on December 21st at the Antarctic Circle the longest day is twenty-four hours—that is, the sun does not set on that day.

4. In the Frigid Zones, the days and nights are still more unequal in length than in the *Temperate*.

At the Polar Circles the longest day is twenty-four hours, and its length increases towards the Poles—the sun frequently being above or below the horizon for days and weeks together. At the Poles, the days and nights are each six months long.

Questions.—Are the days or nights, at the Equator, ever more than twelve hours long? Does the inequality increase or diminish as we go towards the Poles? When are the days longest in the *Temperate Zones*: in summer, or in winter? When are the nights longest? At what part of the *Temperate Zones* are the summer days longest; near the Tropics, or the Polar Circles? How long is the longest day at the Polar Circles? Does the length of the days, in summer, increase or diminish from the Polar Circles to the Poles? How long is the day at the Poles? The night? Is the Day, at the Poles, summer or winter?



MAPS, GLOBES, AND CHARTS.

A MAP is a representation of the whole or a part of the earth's surface on a plane, or flat surface.

Maps exhibit the lines of latitude and longitude; the Equator; the tropical and polar circles; and the position of continents, islands, oceans, mountains, rivers, countries, and towns.

Maps enable us to see at once the form of the various bodies of land and water, and their direction from each other. They assist us in comparing the sizes of different countries, and in estimating the distance from one place to another.

2. North is towards the top of the map; South is towards the bottom; East is towards the right hand; and West is towards the left hand.

3. The best representation of the whole earth is by an **Artificial Globe**, which is a ball on which are drawn the various objects, as on a map. On a globe we see only one hemisphere at a time.

If we should cut a globe into halves, and place them side by side, with the curved sides towards us, we should have nearly the same view of the earth's surface, as that presented by a map of the hemispheres—such as the one above.

4. The **Scale** of a map is useful in measuring the distances between different places.

The maps in this book are so drawn that one inch on the map represents a certain number of miles on the corresponding part of the Earth. By measuring on the map, it is easy to calculate the distance between any two points on the Earth's surface.

5. A **Chart** differs from a map in always having the meridians and parallels drawn as straight lines. (See Page 114.) For this reason charts are chiefly used by navigators.

Questions.—What is a map? What do maps exhibit? What is the use of maps? Towards what part of the map is North? South? East? West? What is the best representation of the whole earth? What kind of a view of the earth is presented by a map of the hemispheres? Of what use is the scale of a map? Suppose on a map, the scale of which is 50 miles to the inch, two places are three inches apart: what distance are they from each other? What is a Chart?

Questions on Latitude and Longitude.

[NOTE.—These questions may be answered from the map at the top of the page.]

Is North America in North or South Latitude? Why? Europe? Why? Australia? Why? In what latitude is the greater part of South America? Is any part of Asia in South Latitude? Is any part of Africa in North Latitude? In South Latitude? Is any part of South America in North Latitude?

In what longitude (from the meridian of Greenwich) is South America? Australia? Asia? North America? Is any part of Africa in West Longitude? In what longitude is the greater part of Europe? Why?

On a certain day, the ship "Flying Cloud" was in 20° of North Latitude: can you tell me whether she was in the Atlantic, or in the Pacific Ocean? Suppose I also say that she was in 140° of West Longitude: can you now tell me in what ocean she was? In what direction was she from North America? From South America? How many degrees from the Equator? From the South Pole? The North Pole?

The ship "Storm King" was lost in a hurricane in 20° South Latitude, and 80° East Longitude: in what ocean was this vessel wrecked? In what direction from Africa was this ship? From Asia? From Australia? How far was it from the Equator? From the South Pole?

Suppose two ships are at the Equator—one in 180°, the other in 40°, of West Longitude: how many degrees apart are they? How many miles? Suppose they each sail directly north to 60° of North Latitude: are they any nearer to each other than before? How far north would they have to go, in order to meet?

Questions on Zones.

How many degrees on each side of the Equator does the Torrid Zone extend? How many degrees wide, then, is the Torrid Zone? How many degrees wide are the Frigid Zones? The Temperate Zones? How many miles wide is each of these zones, reckoning 70 miles to a degree? How many degrees from the Equator are the Tropical Circles?

How many degrees from the Poles are the Polar Circles? Between what circles is the Torrid Zone included? The North Temperate? The South Temperate? At what latitude would a ship enter the North Temperate Zone, in sailing from the Equator?

What is the meaning of Torrid? Frigid? Arctic? Antarctic? Australia?

[NOTE.—Questions of this kind, which will be found in many of the succeeding lessons, are answered in the Pronouncing Vocabulary at the end of the book.]

PHYSICAL GEOGRAPHY.

PHYSICAL GEOGRAPHY treats of the land and water into which the earth's surface is divided; of the atmosphere which surrounds the earth; and of the animals and plants which live upon it.

FORMS OF THE LAND.

THE surface of the earth consists of land and water, — about one-fourth being land, and three-fourths water.

2. The land surface of the earth is divided into continents and islands.

Various parts of these divisions receive different names, according to their size, shape, or some other circumstance. The principal of them are peninsulas, capes, and isthmuses.

Such divisions as continents, islands, and peninsulas are called *natural*, to distinguish them from divisions formed by man, such as States and Countries.

3. A **Continent** is a great body of land, containing many countries.

There are two continents — the Eastern and the Western. Australia is sometimes considered a continent, but in this book it is classed among islands. A tract of uninhabited land, south of Australia, first discovered in 1840, is known as the Antarctic Continent. It is not however, strictly speaking, a continent.

4. An **Island** is a body of land entirely surrounded by water.

A number of islands, closely clustered together, form an **Archipelago**. This term is also applied to a sea interspersed with islands. Islands differ from continents only in size — both being surrounded by water.

5. A **Peninsula** is a body of land nearly surrounded by water. Africa and South America are the largest peninsulas.

6. A **Cape** is a point of land extending into the water.

If the land of the cape is elevated, it is called a **Promontory, Headland** or **Head**.

7. An **Isthmus** is a narrow neck of land which connects two larger bodies of land. The Isthmus of Panama connects North and South America.

8. A **Coast** or **Shore** is the land bordering on the water.

Questions.—What is Physical Geography? When you are learning about islands, are you studying Mathematical or Physical Geography? In what division of geography do you learn the movements of the earth? Of what does the surface of the earth consist? How much greater portion of it is water than land? What is the difference between a continent and an island? Why are such divisions as continents and islands called natural divisions?

What is an island? An archipelago? What is a peninsula? A cape? A promontory or headland? An isthmus? A coast? What do you mean by the coast of North America? Spell the following words: Physical, Archipelago, Peninsula, Isthmus, Darien.

SURFACE OF THE LAND.

THE land surface of the earth is diversified by plains, mountains, hills, table-lands or plateaus, and valleys.

2. A **Plain** is a tract of land nearly level.

Some plains appear perfectly flat, while others have a rolling surface, like many of our western prairies.

3. A **Mountain** is an elevation of land which rises considerably above the general surface.

4. Elevations of less than fifteen hundred or two thousand feet, are usually called **Hills**.

The **Base** of a mountain, or hill, is that upon which it rests. We reckon the height of mountains not from the base, but from the level of the ocean; which is the same in all parts of the world, and therefore forms a fixed standard for comparing the heights of mountains.

Mountains are seldom found single, but are generally in groups or chains. A mountain-chain is an irregular mass of elevated land, which is sometimes several thousand miles long, and more than a hundred wide. A chain of mountains is also called a **Ridge**, or **Range**. A number of chains, extending in the same general direction, constitute what is called a **Mountain-system**.



MOUNTAIN SCENERY.

Mountains do not often rise abruptly from the level surface of a plain; the ground, for some distance around the base, is usually broken into hills.

5. A **Volcano** is a mountain which casts out fire, smoke, melted lava, or other substances, from an opening called a **Crater**.

Volcanoes are usually mountains, but not always. Sometimes the opening is in a plain, and sometimes even under the sea. It is supposed that the interior of the earth is a heated mass, to which the volcanoes serve as chimneys. There are more than four hundred volcanoes upon the globe, most of which are in the Torrid Zone.

6. A **Table-land**, or **Plateau**, is an elevated plain, rising somewhat abruptly from the surrounding surface. Plateaus are generally crossed and bordered by mountain-chains.

7. A **Valley** is a tract of country between mountains or hills.

A valley may be a narrow space between the sides of mountains, or it may be a broad and level plain, thousands of miles in extent.

8. A **Desert** is a tract of land which is nearly or wholly barren.

A fertile spot in the midst of a desert is called an **Oasis**. Deserts are generally composed of sand or gravel. They sometimes contain tracts of clay and of salt marsh, and occasionally produce a scanty growth of coarse grass. They may be either table-lands or plains.

Questions.—How is the land surface of the earth diversified? What is a plain? Is there a plain in your neighborhood? What is the difference between a mountain and a hill? What is the base of a mountain? Why is the height of mountains reckoned from the level of the sea? Are mountains commonly found single? Describe the formation of a mountain-chain. Do mountains rise abruptly from a level surface? What is a volcano? What is the use of volcanoes? What is the difference between a plateau and a plain? By what are plateaus generally crossed? What is a valley? Can a valley be a plain? Are deserts always perfectly barren? Of what are they composed? Are they always low plains? What is an Oasis? Spell Plateau; Volcano.

WATER.

THE waters of the earth consist of the ocean and its various divisions; and of lakes and rivers.

2. The **Ocean**, or **Sea**, is that great body of salt water which covers nearly three-fourths of the surface of the earth.

The Ocean is divided into five principal parts, which are also called oceans,—the *Pacific, Atlantic, Indian, Arctic, and Antarctic*.

3. Parts of the ocean near the land, or extending into it, are called seas, gulfs, bays, sounds, harbors, straits, or channels.

4. A **Sea**, **Gulf**, **Bay**, or **Bight** is a body of water nearly surrounded by land; as the Mediterranean Sea, the Gulf of Mexico, Hudson Bay, the Bight of Benin.

In a few cases, however, they are more open to the ocean; as the Arabian Sea, the Bay of Bengal, and the Bay of Biscay. There is but little difference between a sea, a gulf, and a bay; though most bays are smaller than seas or gulfs.

5. A **Sound** is a passage of water so shallow that its depth may be easily sounded or measured.

6. A **Harbor** is a small inlet, so sheltered from the open sea as to afford safety to vessels.

A harbor, in order to be good, must be nearly surrounded by land; it should have deep water, and be easy of entrance. Where the coast is low and sandy, the harbors are not very good, for the water is shallow, and the entrance obstructed by sand-bars. A *sand-bar* or *shoal* is a bank of sand, rising to within a few feet of the surface. A line of rocks similarly situated is called a *ledge*. If a vessel draws so many feet of water (that is, sinks so many feet deep in floating) as to strike against the bar or ledge, she cannot enter the harbor.

7. A **Strait** or **Channel** is a narrow passage connecting two larger bodies of water.

In harbors and rivers the line of deepest water which affords a passage for vessels is called the channel.

Questions.—Of what do the waters of the earth consist? What is the ocean? What are its principal divisions? What are those parts of the ocean called which are near the land? What is a sea, gulf, or bay? Is there much difference between them? What is a sound? A harbor? Can a harbor be good which has very shallow water? What danger would there be in having sunken rocks near the entrance? What disadvantage in having a sand-bar at the entrance?

If a vessel draws ten feet of water, can she cross a sand-bar which is within eight feet of the surface? What do you mean by saying that a vessel draws ten feet of water? Suppose a harbor is not well protected by the land, what danger would there be to vessels lying within it? What is a strait?

LAKES AND RIVERS.

A **Lake** is a body of water surrounded by land. The **Foot** of a lake is the part near its outlet, and the **Head** is the part opposite.

Lakes are formed by rivers flowing into hollow places in the land, by the overflow of springs, or by the melting of snow or ice. The greater number of lakes have rivers flowing into them, and from them. Lakes which have no outlet are generally salt; these, if large, are sometimes called **Seas**. Small lakes are called **Ponds**.

2. A **River** is a stream of fresh water which flows into the sea, or into some other body of water.

Small rivers are called **Brooks** or **Creeks**. A **River System** is a collection of rivers flowing into the same ocean, sea, bay, gulf, or other large river.

3. The **Source** of a river is the place where it rises. Its **Mouth** is the place where it flows into some other body of water.

Rivers are usually formed of small streams flowing from springs among the mountains and hills. Some, however, flow directly from lakes; while others have their source from the melting of great masses of ice called *Glaciers*, which are found in many mountain valleys.



Most great rivers flow into the sea by several mouths. The space included between the two outside streams is called a **Delta**, because it is shaped somewhat like a letter of the Greek alphabet, Δ , called *delta*. A very wide mouth, like that of the Amazon, is called an *Estuary, Firth, Frith, or Fjord*.

4. Rivers generally rise among mountains or hills. Their course depends upon the slope of the land.

The land generally slopes from the interior towards the sea. Where the mountains are near the coast, the slope towards the sea is steep and abrupt; the rivers on that side, therefore, are short and rapid. If the mountains are far from the sea, the slope is gradual; the rivers then are long, and have a gentle current.

5. The **Bed** of a river is the channel within which its waters are confined, and which is bordered by its **Banks**.

The *right* and *left banks* are those on the right and left sides in going *down* the stream—that is, from the source to the mouth. The **Current** of a river is the onward flow of its waters towards the mouth.

When the bed slopes considerably, the river flows with great speed and violence, forming a **Rapid**. If the descent is steep and sudden, a **Water-fall** is formed. A small water-fall is a *Cascade*; a great one is a *Cataract*. Where the river flows through a level country, there are neither rapids nor water-falls.

6. The **Basin**, or **Valley**, of a river, is the extent of country which is drained by the river with all its tributaries.

If you draw a line on the map, passing through the source of a river, and of every river and stream which flows into it, the line will form the boundary of its Basin.

7. A **Water-shed** or “**Divide**” is the line or ridge of elevated land which separates two rivers, or series of rivers; one series flowing down one slope, and the other flowing down another slope in a different direction.

8. Rivers generally afford an easy means of reaching the interior of a country.

When men begin to settle a new country, they generally select a place near a river; because they can more readily communicate with other settlements by way of the river, than by travelling on land, where there are at first no roads. The soil, too, is commonly more fertile. In this way, villages, towns, and cities spring up on the banks of navigable rivers. Most of the great cities in the world are situated upon rivers.

A navigable river is one on which vessels can navigate, or sail. Rapids and falls obstruct the navigation of a river, but a channel, or canal, is sometimes made around them.

Questions.—What is a lake? Do rivers ever flow into lakes? Do they ever flow from them? What lakes are generally salt? What is a river? What is the source of a river? What is its mouth? What is the delta of a river? What is an estuary? Where do rivers generally rise? Upon what does their course depend?

What is the bed of a river? In sailing towards the mouth, which bank is on your right hand? In sailing up a river, which bank is on your left hand? What produces a rapid? A cataract? Would there be any difficulty in sailing up a rapid? Why? Which is most likely to have rapids and falls: a level or a hilly country? What is a river-basin? How can you mark out the limits of a river-basin? What is a water-shed? Why do men, in settling a new country, select a place near a river? Where are most of the great cities of the world situated? What is a navigable river?

THE ATMOSPHERE.

THE ATMOSPHERE, or the air, is an invisible fluid or gas which surrounds the earth, and which we breathe. Its most important physical properties are *weight, motion, moisture, and temperature*.

2. Wind is air in motion. It is caused by the unequal distribution of heat from the sun, and by the motion of the earth on its axis.

When the air at any place becomes warmer than that by which it is surrounded, it expands, becomes lighter, and is forced upward by the cooler and heavier air which flows from all sides towards that center, creating currents called winds.

Winds receive their general name from the direction *from which* they blow; they thus differ from currents of water, which are named from the direction *toward which* they flow. A northeast wind is one *coming from* the northeast; a northeast current is one *going toward* the northeast. Winds have also received special names, such as *trade winds, monsoons, cyclones, &c.*

3. Trade Winds are constant currents within the Tropics. Those north of the equator are N. E. Trades, those south of the equator are S. E. Trades. **Cyclones** are violent winds having a whirling motion. They are also sometimes called *hurricanes, typhoons* and *tornadoes*.

Winds agitate the air, and keep it from becoming stagnant and impure; they carry moisture from the sea to the land to fertilize the earth; they exchange the heat of the Tropics for the cold of the Frigid Zones, and thus help to equalize the temperature of the earth; they distribute the seeds of plants, and speed vessels on the water.

4. The Moisture of the atmosphere is the vapor diffused through it. The hot sun shining upon water is continually changing the water into vapor, which rises in the air.

Vapor is moisture suspended in the air. **Dew** is vapor condensed on the surface of bodies colder than the air. A **Cloud** is visible, or partly condensed, vapor. **Fog** is a cloud resting on the earth. **Rain** is vapor condensed and falling to the earth. **Snow** is frozen vapor. **Hail** is frozen rain. **Frost** is frozen dew.

Questions.—What is the atmosphere? Name its properties. What is wind, and how is it formed? What name would be given to a wind blowing toward the northeast? To an oceanic current flowing toward the northeast? What are the Trade winds? What are the names given to violent whirlwinds? What causes the moisture of the atmosphere? What is vapor? Give the names of its different forms.

CLIMATE.

CLIMATE is the condition of the atmosphere as regards motion, moisture and temperature.

2. The principal causes affecting climate are *latitude, elevation, slope, soil, nearness to ocean, ocean currents, and prevailing winds*.

3. Latitude, or distance from the equator, determines the general climate of a country. A low latitude makes a warm climate; a high latitude, a cold climate.

Places between the Tropics have a hot climate with usually two seasons—a wet and a dry season, though some sections have four seasons—two wet and two dry each year. Those between the Poles and the Polar Circles have a cold climate, with two seasons—a long severe winter and a short summer. Countries between the Tropics and the Polar Circles have a mild climate and four seasons. The summers are not so hot as in the Tropics, nor so cold as in the Polar Regions. [See Zones, p. 8.]

4. A Great Elevation makes the climate colder.

The higher you ascend above the general surface, the colder the air becomes. The effects of this are strikingly shown in tropical countries, where, in ascending a mountain only three or four miles high, you pass through as many changes of climate as in traveling from the equator to the poles. Even at the equator, the summits of lofty mountains are perpetually covered with snow.

5. Slopes that lie toward the sun have a warmer climate than those that are turned away from the sun.

Slopes that lie toward the sun receive its rays more directly. In the Northern Hemisphere the *southern* slopes are toward the sun; in the Southern Hemisphere the *northern* slopes. East and west slopes are equally heated by the sun.

6. Soil.—A light, sandy soil makes the climate warmer.

The air over a great desert, if it be in a low latitude, becomes intensely hot by day, though it cools rapidly at night. This is partly because the light color of the soil reflects the rays of the sun; a black soil absorbs the rays.

7. Nearness to Ocean.—Places near the ocean have a more uniform temperature; those in the interior of a continent, a more extreme climate. The former is called an oceanic, the latter a continental, climate.

Large bodies of water are cooler in summer and warmer in winter than the land. Places near the ocean are therefore cooler in summer and warmer in winter than other places of the same latitude in the interior of a country.

8. Ocean Currents are either colder or warmer than the surrounding ocean, and make the countries near which they flow colder or warmer accordingly. The **Prevailing Winds**, whether warm or cold, moist or dry, affect the climate of the countries over which they blow.

9. The Seasons.—The change of climate in the different seasons depends on the position of the earth in its orbit. At different points the direct rays of the sun fall at different places within the Tropics. When the direct rays fall north of the equator, the Northern Hemisphere has summer; when south, winter.

Rainy and dry seasons within the Tropics are caused by the great evaporation that takes place under the direct rays of the sun. As the hot, saturated currents of air rise to greater elevations, the moisture is precipitated, usually during violent thunderstorms.

10. The Weather.—The constant changes in the weather are not accidental, but follow certain laws, many of which are known.

The study of the weather is now practically reduced to a science, so that it is possible to predict the approach of storms, gales, cold or warm temperature, or fair weather, several hours or even days in advance. The bulletins and cautionary signals of the United States Signal Service are of great value to the farmer, the sailor, and the community in general.

Questions.—What is climate? What causes affect it? What determines the general character of the climate of any locality? What effect has elevation on climate? How does the nature of the soil affect climate? What is the difference between an oceanic and a continental climate? Describe the effect of winds and ocean-currents. What causes change of climate in the seasons? Are changes in the weather accidental?

PRODUCTIONS.

THE PRODUCTIONS of the earth are *minerals, plants* and *animals*. Animals feed either directly or indirectly upon plants, while plants feed upon minerals.

2. Minerals form the main part of the earth's crust. The rocks, the water, most of the soil, the metals and stones, are all mineral.

In speaking of mineral productions, we usually refer to such as are dug from mines. These minerals—except coal, which is found in many places—are generally distributed along the lines of mountains. The most useful minerals are iron, coal, lead, tin, zinc and petroleum; the most valuable, gold, silver, and precious stones.

3. The vegetable productions of the earth vary with the climate.

The term *vegetation, or vegetable productions*, includes trees, flowers, fruits, grains, grasses, and all other plants.

4. Vegetation is most luxuriant in tropical countries. The excessive moisture and heat produce trees of enormous size, flowers of the most brilliant colors, and climbing plants in great number and variety.

The most important tropical food productions are yams, bananas, plantains, bread-fruit, cassava (from which tapioca is made), sago, cocoa-nuts, and the cacao tree (from the seeds of the fruit of which chocolate and cocoa are prepared). Many delicious fruits are also produced in the Torrid Zone—such as pine-apples, oranges, lemons, etc.

Spices—such as pepper, cloves, and nutmegs—come from tropical countries; and many kinds of beautiful wood, as mahogany and rosewood, grow there in great abundance. The vegetation of the Torrid Zone continues green throughout the year; while the plants of other regions more generally shed their leaves in winter.

5. On leaving the Torrid Zone, tropical plants gradually disappear. Instead of the palm and banana trees, we find the beech, oak, maple, and pine. The Temperate Zones are the regions of the grape-vine, the potato, and of various grains—such as wheat, Indian corn, barley, oats, and rye. Hemp and flax thrive best in these zones.

Many of the most important vegetable productions grow both in the Torrid and in the warmer parts of the Temperate Zones. Among these are rice, cotton, coffee, tobacco, and the sugar-cane. Tea is principally produced in the Temperate Zone.

6. In the Frigid Zones, trees dwindle into mere shrubs; and in the regions of perpetual snow, no vegetation exists, except a few minute plants that grow upon the surface of the snow.

But as the sun, within the Polar Circles, remains above the horizon for days or weeks together in summer, this season becomes very warm in a large part of the Frigid Zone, producing grass and beautiful flowers. Mosses in abundance are also found in these cold countries, affording subsistence to reindeer and other animals.

7. In ascending from the base of mountains and table-lands, the same changes in the character of vegetation are found as in going towards the Poles; so that a tropical mountain, of great elevation, possesses the climate and many of the productions of every zone.

Questions.—What three classes include all productions of the earth? Of what is the greater part of the earth's crust composed? What is generally meant by the term mineral productions? What does the term vegetation include? Where is vegetation most luxuriant? Name some of the fruits and spices of the Torrid Zone. What fruits are raised in your vicinity? What trees grow in the Temperate Zones? What kinds of grain? What is the vegetation of the Frigid Zones? From what plant is tapioca made? Sugar? Chocolate? Cocoa?

ANIMALS.

THE character of the animals which inhabit the earth varies with the climate and vegetation.

The distribution of animals is also affected by population; in thickly peopled countries domestic animals are fostered and wild animals are gradually exterminated.

2. In the Torrid Zone we find the largest, strongest, and most ferocious land animals. A great variety of birds, and vast numbers of dangerous reptiles and troublesome insects, are also found in this zone. The birds, fishes, insects, serpents, and many of the wild beasts, are adorned with the most brilliant and beautiful colors.

Among the most remarkable animals living within or near the Tropics, are the elephant, rhinoceros, hippopotamus, giraffe, camel, lion, tiger, jackal, leopard, and hyena. These animals, however, are not found in the Western Continent. The monkey is confined almost entirely to tropical regions. The boa constrictor, crocodile, and alligator are among the most formidable reptiles.

3. In the Temperate regions we find the buffalo, bear, deer, wolf, fox, and wild-cat. Reptiles and insects become fewer, smaller, and less troublesome. The birds have not so gorgeous a plumage, but they are more melodious.

4. In the Polar regions, the animals have a less brilliant color. There are no reptiles, and but few insects.

The variety of animals is not so great in the Arctic regions as elsewhere, but the number, especially of birds and fishes, is immense. The principal land animals are reindeer, bears, wolves, foxes, sables, and ermine. Whales, seals, narwhals, walruses, and vast shoals of fishes, are found in the Polar Seas. Great flocks of ducks, geese, and other birds, hover in countless numbers over the islands and along the shores.

5. In ascending from the base of tropical mountains, we find the same changes of animal life that are observed in passing from the Equator to the Poles.

6. Most animals can exist only in the climate for which they are by nature adapted. The reindeer and polar bear cannot endure the warmth of the Temperate and Torrid Zones; nor could the lion and tiger long survive the rigors of an Arctic winter.

On this account, a lofty chain of mountains forms an impassable barrier for the animals living on opposite sides; for in crossing the mountains, they would have to enter a different climate from that in which they are formed to live.

Many of the most useful domestic animals, however, such as the ox, horse, sheep, goat, hog, and dog, are found in almost every part of the world which is inhabited by man.

Questions.—Where do we find the largest and fiercest animals? The greatest number of serpents and insects? Mention the most remarkable animals of the Torrid Zone. Mention all the tropical animals that you have seen. Which of the tropical animals are not found in the Western Continent? What are the principal animals of the Temperate Zones? Name the principal animals of the Frigid Zones. Can the animals of one zone generally live in another? Why does a chain of high mountains usually form a barrier to animals on each side? What useful animals can live in almost any part of the world?

MAN.

THE Earth was made for Man; hence, he is found in nearly every country and climate.

Men can adapt the warmth or lightness of their clothing to the climate in which they live. They can also derive nourishment from various kinds of food. If it were not so, they could not occupy, and have dominion over, the whole earth.

In the Frigid Zone, where there is little or no vegetable food, men subsist almost wholly on animals. In the Torrid Zone, they live almost entirely on vegetable food, which is best suited to health in a hot climate. In the Temperate Zones, where animal and vegetable food are both abundant, men partake of both.

2. The most intelligent and highly civilized nations live in the Temperate Zones. The inhabitants of the Torrid Zone are languid and indolent from the excessive heat; while in the barren regions near the Poles, the energies of the inhabitants are so fully devoted to procuring the mere necessities of life that they have little opportunity for improvement.

3. Mankind is divided into five varieties, or races, differing from each other by certain characteristic features.

1. The **Caucasian**, or **White race**.—Most of the nations of Europe and America belong to this race. The Caucasian race is superior to all others in intelligence, energy, and courage.

2. The **Mongolian**, or **Yellow race**, is found chiefly in Asia. The Chinese and Japanese belonging to the Mongolian race.

3. The **Ethiopian**, or **Black race**, includes all the natives of Africa, except those of the northern part; the natives of Australia, and some of the neighboring islands, and the negroes of America.

4. The **Malay**, or **Brown race**, inhabit most of the islands of the Pacific Ocean, the Malay Peninsula (in Asia), and many of the adjacent islands.

5. The **American**, or **Red race**, includes all the Indians of the Western Continent, except the Eskimos, in the extreme north, who belong to the Mongolian race.

Questions.—Are men confined to any one country or climate? Why are men able to accommodate themselves to various degrees of heat and cold? Are they confined to any one kind of food? If they were, what would be the effect? Upon what kind of food do men live in the Frigid Zones? In the Torrid Zone? In the Temperate Zones? In what zones do the most intelligent nations live?

Into how many races is mankind divided? Do they all look alike? Which is the most intelligent race? Which are the most important branches of this race? Where is the Mongolian race chiefly found? The Ethiopian? The Malay? The American? To what race do the Chinese and Japanese belong? The American Indians? The Eskimos? Most of the Africans? The Australians? The natives of the islands of the Pacific? The natives of the Malay Peninsula? Most of the European nations?

POLITICAL GEOGRAPHY.

POLITICAL GEOGRAPHY treats of the division of the world into various countries or States; and of the occupations of the inhabitants, of government, of religion, and of the state of society.

OCCUPATIONS.

OCCUPATIONS are the different kinds of work in which people are engaged. The principal occupations are agriculture, hunting, fishing, mining, manufacturing, commerce, and the professions.

2. Agriculture is the most important of all the occupations, since the world is fed from the fields. Stock-raising and dairying are branches of agriculture.

In very warm countries agriculture is not conducted with much skill; for the fruits grow wild, in great abundance, and little care is required to procure food, shelter, and clothing. Thus, it is said that three of the Bread-Fruit trees will afford one person a constant supply of food.

On the other hand, in very cold countries, where the ground is covered with snow the greater part of the year, the soil will not yield a sufficient support, and the people must gain a subsistence by hunting and fishing.

A temperate climate is favorable to the highest skill in agriculture. In such a climate, few useful plants grow without cultivation; yet, by cultivation, a great abundance may be produced. For the production of wheat, corn, and other grains common to the Temperate Zones, much labor is required, but such labor is well rewarded.

The raising of **live-stock** is an important industry in countries where good pasturage is abundant. The term live-stock includes cattle, horses, sheep, goats, etc. The principal articles obtained from them are, hides, skins, horns, tallow, hair, wool, beef and pork, and the products of the dairy: milk, butter, and cheese.

3. Hunting supplies a large part of the food in thinly peopled countries; it also furnishes the fur used for winter clothing.

4. Fishing.—The products of the fisheries are of great value to man. Oil and whale-bone are obtained from the whale; seal-skin and oil, from the seal; and vast numbers of cod, salmon, mackerel, herring, and other fish, are salted, or otherwise preserved, for food.

5. Mining is the business of obtaining mineral productions. The places where they are obtained are called **mines**. The place from which building-stone is taken is termed a **quarry**.

Mineral productions consist principally of jewels or precious stones; of precious metals, such as gold, silver, and platinum; of useful metals, as iron, tin, lead, copper, zinc, and quicksilver; of various kinds of stone, such as marble, granite, sandstone, limestone—useful for building purposes; of coal, salt, and many other minerals.

Questions.—What is Political Geography? What department of Geography are you learning when you study the government of a country? Its plains, mountains, and rivers? When you are studying about Latitude and Longitude?

What are the principal occupations? Which is the most important occupation? Why? Why is not agriculture conducted with much skill in very warm countries? In very cold climates? Why is a temperate climate favorable to agricultural skill? In what countries is agricultural skill unnecessary? Where is it both necessary and successful? What does *live stock* mean? From what animals are hides obtained? Horns? Tallow? Wool? Beef? Pork? Milk, butter and cheese?

What occupation supplies much of the food in thinly settled countries? How are furs obtained? What are some of the important products of the fisheries? What is mining? What is a mine? What is a quarry? Let each scholar name some jewel or precious stone. Name the principal precious metals. The useful metals. The various kinds of stone. Which are the most necessary to comfort and convenience: gold, silver, and diamonds, or iron, lead, coal, and salt?

OCCUPATIONS.—Continued.

MANUFACTURING is the art of adapting natural productions to the uses of man.

Very few productions are used in their natural state by men; they must undergo some change to suit their necessity or pleasure. Even the savage, whose wants are few and simple, pounds his corn into meal with a heavy stone, and fashions his rude war-hatchet and spear.

2. In civilized society many different articles are manufactured from animal, vegetable, and mineral productions. Such articles are called manufactures. Thus, leather is made from the skins of animals; cloth from cotton, hemp, and flax; agricultural and household implements from iron, copper, and tin.

It will thus be seen that there are two classes of productions: those which are in a natural state, and those which are manufactured.

3. Among the most necessary manufactures are those which are used for food, clothing, and shelter.

From grain, milk, and the sugar-cane, various kinds of food and drink are made—some of them wholesome, others very injurious. Thus, grain is made not only into flour and meal, but into ale, beer, whiskey, and other intoxicating drinks. From the sugar-cane are manufactured not only sugar and molasses, but rum. Vast quantities of wine are made from the grape.

Among the substances most used for clothing are wool, cotton, leather, flax, and hemp (from which linen is made), and silk. Silk is made from the web of the silk worm. The silk worm is fed with the leaves of the mulberry tree, which grows luxuriantly in Southern Europe, China, and India.

For building-purposes, wood, stone, clay (for bricks) and iron, are chiefly employed. The principal material used for making glass is sand.

4. The ingenious and costly machinery of our great manufacturing establishments requires wealth and a high state of civilization. On that account we must not look for extensive manufactures in a thinly settled country, or among an indolent people.

Machinery is usually driven by steam. In large cities, steam is almost the only power employed. In country districts, especially in the vicinity of waterfalls or rapids, water power is extensively used. The mill or factory is situated on the bank of the stream, and the water falling upon a large wheel turns it around. The revolution of the wheel drives the machinery which manufactures the goods. Sometimes the machinery is driven by the power of the wind. The mill is then called a wind-mill.

Questions.—What is manufacturing? Do men commonly use the productions of the earth in a natural state? Does the savage manufacture as great a variety of articles as the civilized man? From what three classes of substances are manufactures derived? What two classes of productions are there? What are the most necessary manufactures? Name some of the substances which are manufactured for food. From what are ale, beer, and whiskey made? Wine? Rum? Flour? Butter and cheese? Sugar and molasses? Which of these articles are the most valuable?

Name some of the substances manufactured for clothing. From what substance are shoes principally made? Coats? Hats and Caps? Bonnets? Stockings? To which class—animal, vegetable, or mineral—does leather belong? Wool? Straw? Cotton? Hemp and Flax? From what is linen made? From what silk? On what is the silk-worm fed? From what countries do we obtain silk? Name the substances most used for building.

Where would you expect to find extensive manufacturing establishments, in a highly civilized community, or in a thinly settled district? What power is most generally employed in driving machinery? How is water-power used in manufacturing? What is a wind-mill?

OCCUPATIONS.—Continued.

COMMERCE is the exchange of goods. When a farmer raises more grain than he wants, he sells the remainder (called the *surplus*), for something which he does not himself produce. This is the case, too, with the miner, the manufacturer, the fisherman, and every other producer.

Suppose the farmers of an extensive district raise an abundance of grain and live-stock—they wish to sell the surplus in order to procure other articles, such as sugar, tea, coffee, furniture, and books. They cannot dispose of their grain and live-stock to each other, for each man raises more than he needs for his own use. They cannot spare the time to carry their produce to a distant region: they therefore take it to some neighboring town.

The merchants of that town buy the produce thus furnished by the surrounding country, and **export** it (send it away) to other places. They also **import** (bring in) a variety of articles, of which the people stand in need.

2. Commercial Towns.—In a prosperous country there are many large commercial towns in the interior and upon the coast, each forming the centre of trade for the surrounding district.

A sea-coast town cannot have an extensive foreign commerce, unless the harbor is deep enough to admit large ships—for the commerce with distant countries is not often carried on in small vessels. The interior commercial towns are generally situated upon some large river, or lake, which communicates with the coast. Where these are wanting, a railroad sometimes supplies the deficiency.

3. Our own country, so well supplied with noble lakes, rivers, and harbors, contains many great commercial cities which exhibit the advantages of a fortunate position.

Thus, if we examine the map of the United States (pp. 60-61), we shall find on the chain of Great Lakes, Chicago, Milwaukee, Detroit, Toledo, Cleveland, and Buffalo. The wheat, corn, and other products of the Great West are forwarded through these cities, along the lakes and by various railroads and canals, to the great Atlantic cities—New York, Philadelphia, Baltimore, and Boston.

These latter cities pay for the produce thus received by goods manufactured in their vicinity, or by merchandise imported from foreign countries. In like manner, New Orleans carries on trade with St. Louis, and other places in the interior.

4. The Professions are occupations in which the work is done mainly with the mind, as in law, medicine, the ministry, teaching, etc.

Questions.—What is commerce? How do the farmer, miner, fisherman, and manufacturer dispose of the surplus products? What do the merchants in a commercial town do with the productions of the surrounding country? What do they import? A certain country has no iron mines, but manufactures a great amount of cotton goods: which would the people be likely to export? To import?

Why must a large commercial seaport have a deep harbor? How are the commercial towns of the interior connected with the coast? Is our own country well supplied with favorable sites for commercial towns? Give an example of the way in which commerce is carried on between cities on the coast, and those in the interior.

Name some of the principal professions. How do they differ from other occupations?

GOVERNMENT.

GOVERNMENT is that system by which the laws of a country are made, approved, and executed.

Among savage and barbarous nations there are few established forms of law. The lives and property of the people are generally at the disposal of the chief.

2. A government has three departments, the **Legislative**, the **Judiciary**, and the **Executive**.

3. The legislative **makes** the laws; the judiciary **expounds** them, and the executive **enforces** them.

4. There are two principal forms of government, a *Monarchy* and a *Popular Government*.

There are many other names of governments: as, the Patriarchal, which existed in the early history of the Jews, and is now found among the tribes of American Indians, and among some of the tribes of Arabs; and the Aristocracy and Democracy of the ancient Greeks and Romans.

5. A Monarchy is government by a Monarch.

A Monarch is a ruler who inherits his power and holds it for life. Monarchs have different titles. Thus, the monarch of an Empire is called an Emperor, Czar, Sultan, Shah, Mikado, etc.; of a Kingdom, a King; of a Principality, a Prince; of a Duchy, a Duke; of an Electorate, an Elector. The monarch, when a woman, is called a Queen, or Empress.

6. There are two forms of monarchy, *Imperial* and *Constitutional*.

7. In an **Imperial Monarchy** the ruler may himself exercise all three of the powers of government, legislative, judicial and executive. He has almost uncontrolled power over the lives and property of his subjects.

China, Persia, Morocco, and most of the half civilized countries of the Eastern Continent are Imperial Monarchies.

8. In a **Constitutional Monarchy**, the ruler is himself bound to obey the *Constitution*. A constitution is a written instrument in which the rights of the people are stated.

Great Britain is an example of a Constitutional Monarchy.

9. A Popular Government is one in which the people govern themselves. There are two kinds of popular government, *Democracies* and *Republics*.

10. In a **Democracy** the people govern themselves directly. In a **Republic** they are ruled by representatives elected by popular vote for a term of years.

Most of the States and Countries of the Western Continent are Republics. The United States forms the best example of a Republican government.

11. In the United States the power belonging to each of the three departments of government is vested respectively in Congress, the Courts, and the President.

The **Legislative power** belongs to Congress. Congress is composed of two branches, a Senate and a House of Representatives. The Senate is composed of two members from each State, chosen for six years. The House of Representatives is composed of members from each State, chosen for two years, the number of Representatives depending on the population.

The **Judicial power** determines all questions of law and equity arising under the Constitution and laws. It consists of a Supreme Court, and a number of Circuit and District Courts.

The **Executive power** is lodged in the President, who is elected for four years by electors chosen by the people.

12. The character of a government depends, in a great degree, on the intelligence of the people. Despotism can exist only among the ignorant and barbarous. Civilized communities understand their rights, and require their rulers to observe and respect them.

Questions.—What is government? Would you expect to find well regulated government among savages? What are the three departments of government? Name the function of each? What are the principal forms of government? Name some of the other forms. What is a Monarchy? What is the difference between an Imperial and a Constitutional Monarchy? What is a Monarch? Name some of the titles of Monarchs.

What is a popular government? What is the difference between a Democracy and a Republic? What country best illustrates the republican form of government? What is Congress? By whom is the judicial power exercised in the United States? What is the length of the Presidential term of office? Upon what does the character of a government depend?

RELIGION.

RELIGION is the worship of a Supreme Being. Nearly all people have some form of religion. The different ideas of the Being worshiped and the different modes of worship constitute various forms of religion which prevail in the world.

2. The chief religions of the world are the *Christian*, the *Jewish*, the *Mohammedan*, the *Buddhist*, the *Brahman*, and the *Heathen*.

3. **Christians** believe in one God, in Jesus Christ, his Son, as the Saviour of mankind, and in the Bible as the Word of God.

The Christian religion is professed by the most enlightened nations of the earth. The three great classes of its followers are Roman Catholics, Protestants, and adherents of the Greek Church. The French, Irish, Spaniards, Italians, many of the Germans, and the principal part of the inhabitants of Mexico and South America are Catholics. The inhabitants of the United States, England, Scotland, and some countries of Northern Europe are chiefly Protestants. The Russians and Greeks belong to the Greek Church.

4. **Jews** believe in the Old Testament as the Word of God. They reject Christ and his Gospel, and expect a Messiah, or Saviour, yet to come.

The Jews once inhabited the Holy Land. They are now scattered throughout nearly all parts of the world.

5. **Mohammedans** are followers of Mohammed, who lived in Arabia about 600 years after Christ.

They believe in one God, and that Mohammed is his prophet. They consider Moses and Christ as true prophets, but Mohammed as the greatest and the last. The Mohammedans are found in Turkey, Northern Africa, Arabia, Persia, Hindustan, and many other parts of Asia.

6. **Buddhism**, founded in India during the seventh century B. C. by Buddha ("the Awakened"), has more followers than any other religion on the globe. Almost all the inhabitants of the Mongolian nations are Buddhists.

7. **Brahmanism** is the religion of the great mass of the Hindus. It creates castes, or classes of society, of which the most exclusive are the Brahmins, or Priests.

8. **Heathens** believe in false gods. Their religion, among the more intelligent heathen nations, consists of codes of morals interwoven with extravagant myths. Among the ignorant classes, and savage tribes, it degenerates into the worship of idols, beasts, and serpents.

Many of the inhabitants of Asia and Africa, nearly all of the native tribes of the islands of the Pacific, together with the Indians of America, are Heathens. Among some heathen tribes, as in Africa, India, and the islands of the Pacific Ocean, the horrid practice of human sacrifice is connected with their religious worship.

9. About one-half of the people upon the globe are Heathens; about one-third are Christians; nearly one-sixth are Mohammedans; and there are about four millions of Jews.

Christian nations are more powerful, and much more advanced in knowledge, than any others. Their power also is continually increasing. They have colonies in many Heathen countries. They send missionaries to the remotest parts of the earth. They establish schools, and other useful institutions; and there is little doubt that in the course of a few generations, the Christian religion will be spread over the greater part of the earth.

Questions.—What are the principal forms of religion upon the globe? What do Christians believe? How does their belief differ from that of the Jews? Name the three classes of Christians. What is the character of Christian nations? Where do the Jews live? Who was Mohammed? How long ago did he live?

Where are Mohammedans found? What do they believe? What is said of Buddhism? Of Brahmanism? Describe the religion of the Heathens. What do the ignorant classes worship? What part of the inhabitants of the globe are Heathens? Christians? Mohammedans? Jews? What nations are the most powerful?



A PUBLIC SCHOOL.

EDUCATION.

EDUCATION is carried on by means of schools, public, private, and endowed.

2. **Public Schools** are supported by the State; they are usually of three grades—primary, intermediate, and high.

When pupils may attend without expense for tuition, the school is a *free* public school. When children are required by law to attend school, education is said to be *compulsory*. Public schools are supervised by an officer or by officers appointed by the State.

3. **Private Schools** are in charge of private persons. They are supported by their patrons only, and are not supervised by any officer of the State.

4. **Endowed Schools** are such as possess a fund upon which they may draw for support. Public schools may also have such a fund, but the endowed schools are generally universities, colleges, and academies.

Endowed schools are of more ancient origin than public schools. Centuries before there were any free public schools in existence great and good men bequeathed fortunes for the establishment of schools.

5. The education of a people is very largely influenced by the physical conditions of the country which it inhabits, such as climate and geographical position.

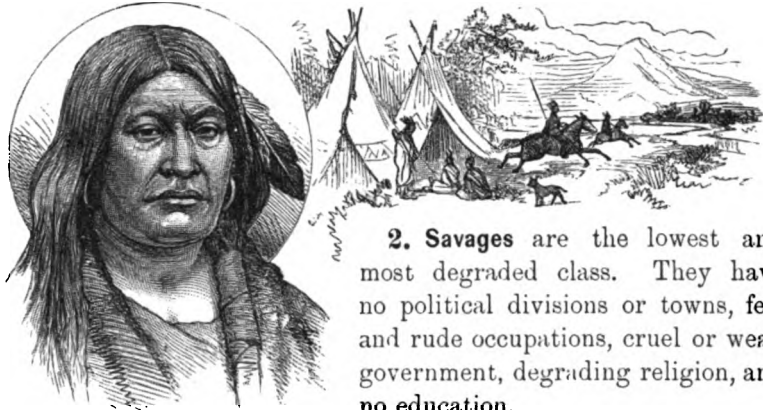
The heat of the tropics is unfavorable to educational progress, as the people become indolent and mental effort is retarded. The severe cold of the frigid zone is also unfavorable, as the energies of the people are almost entirely expended in procuring the necessities of life. A temperate climate affords the best opportunities for educational development, as it incites to activity of body and mind, and men have sufficient opportunity, after providing for material necessities, to cultivate the mental faculties.

Questions.—How is education carried on? How many kinds of schools are there? How are public schools supported? What are the usual grades of public schools? What is a free public school? What is meant by compulsory education? How are public schools supervised? How are private schools supported?

What is an endowed school? In which class of schools would you place colleges, universities, and academies? Which are older—public schools or endowed schools? Is the educational development of a people affected by surroundings? How? In what zones would you expect to find the best schools?

STATES OF SOCIETY.

STATES of Society are the conditions of people as regards political divisions, occupations, government, religion, education, etc. The various nations and tribes of men are classed as *savage*, *barbarous*, *half-civilized*, and *civilized*.



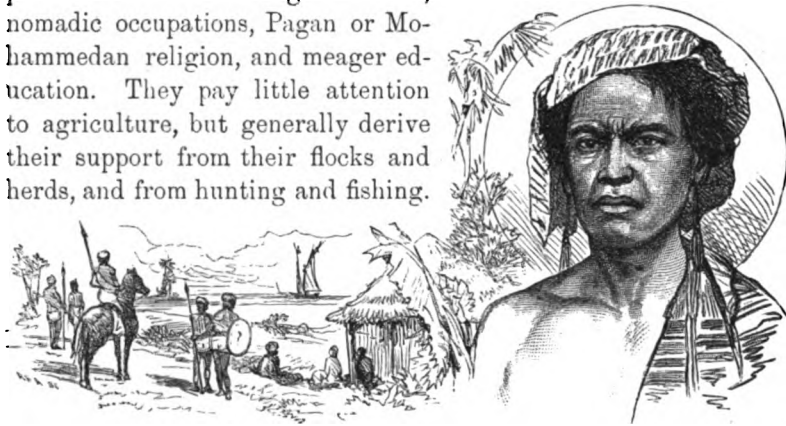
SAVAGE.

2. Savages are the lowest and most degraded class. They have no political divisions or towns, few and rude occupations, cruel or weak government, degrading religion, and no education.

Very few savages cultivate the soil. The greater part subsist on roots and wild fruit, or by hunting and fishing. Some tribes are ignorant of the use of fire, and eat their food raw.

The American Indians, many of the negro tribes of Africa, and all the native tribes of Australia are savages.

3. In the Barbarous State men are somewhat more advanced than in the savage. They have indefinite political divisions, patriarchal or tribal government, nomadic occupations, Pagan or Mohammedan religion, and meager education. They pay little attention to agriculture, but generally derive their support from their flocks and herds, and from hunting and fishing.



BARBAROUS.

The wandering tribes who inhabit the great plateaus of Central Asia, the Bedouins of Arabia, and the Tuaricks and some of the Moorish tribes of Northern Africa belong to this class.

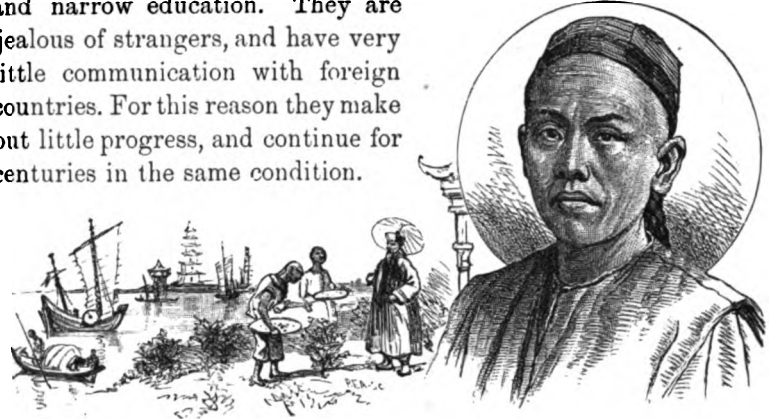
4. Savage and barbarous nations have very imperfect ideas of good and evil and very little aptitude for labor. They are almost always engaged in war. They are addicted to plunder and robbery, are cruel and revengeful, and generally treat their women as inferior beings.

Questions.—What is meant by States of Society? Into what classes are the nations and tribes divided? Which is the lowest class? Upon what do savages live? Are there farmers and mechanics among savage tribes? Do savages have large towns and cities? If a tribe be ignorant of the use of fire, how must they eat their food? To what class do the American Indians belong? The natives of Africa and Australia?

Which is more advanced—the savage state or the barbarous state? Do barbarous tribes have large towns? What kind of government do they have? Are they skilled in agriculture? What is meant by nomadic occupations? What is the prevailing religion among barbarous tribes? What examples of barbarous tribes can you mention? Are savages and barbarous nations of a peaceful character? Are they fond of labor? What can you say of their ideas of good and evil? How are women treated by them?

STATES OF SOCIETY.—Continued.

HALF-CIVILIZED nations have definite political divisions and large towns. They practice the manual occupations with great skill, but have only a limited knowledge of the professions. They have Mohammedan, Buddhist, or Brahman religions and narrow education. They are jealous of strangers, and have very little communication with foreign countries. For this reason they make but little progress, and continue for centuries in the same condition.



HALF-CIVILIZED.

Most of the half civilized nations inhabit the Eastern Continent. The Persians, Turks, Hindus, and Chinese are half-civilized.

2. Civilized Nations have many political divisions for the purpose of local self-government, and many cities and villages. They practice all the manual and professional occupations, have constitutional governments, Christian or Jewish religion, and many public schools and schools of higher education.



The civilized man can measure the size and distance of the heavenly bodies, which the savage ignorantly worships as gods. Civilized nations rapidly advance in knowledge, for they maintain a constant communication with each other, and with the remotest parts of the earth. They have colleges, churches, hospitals, and many other useful institutions.



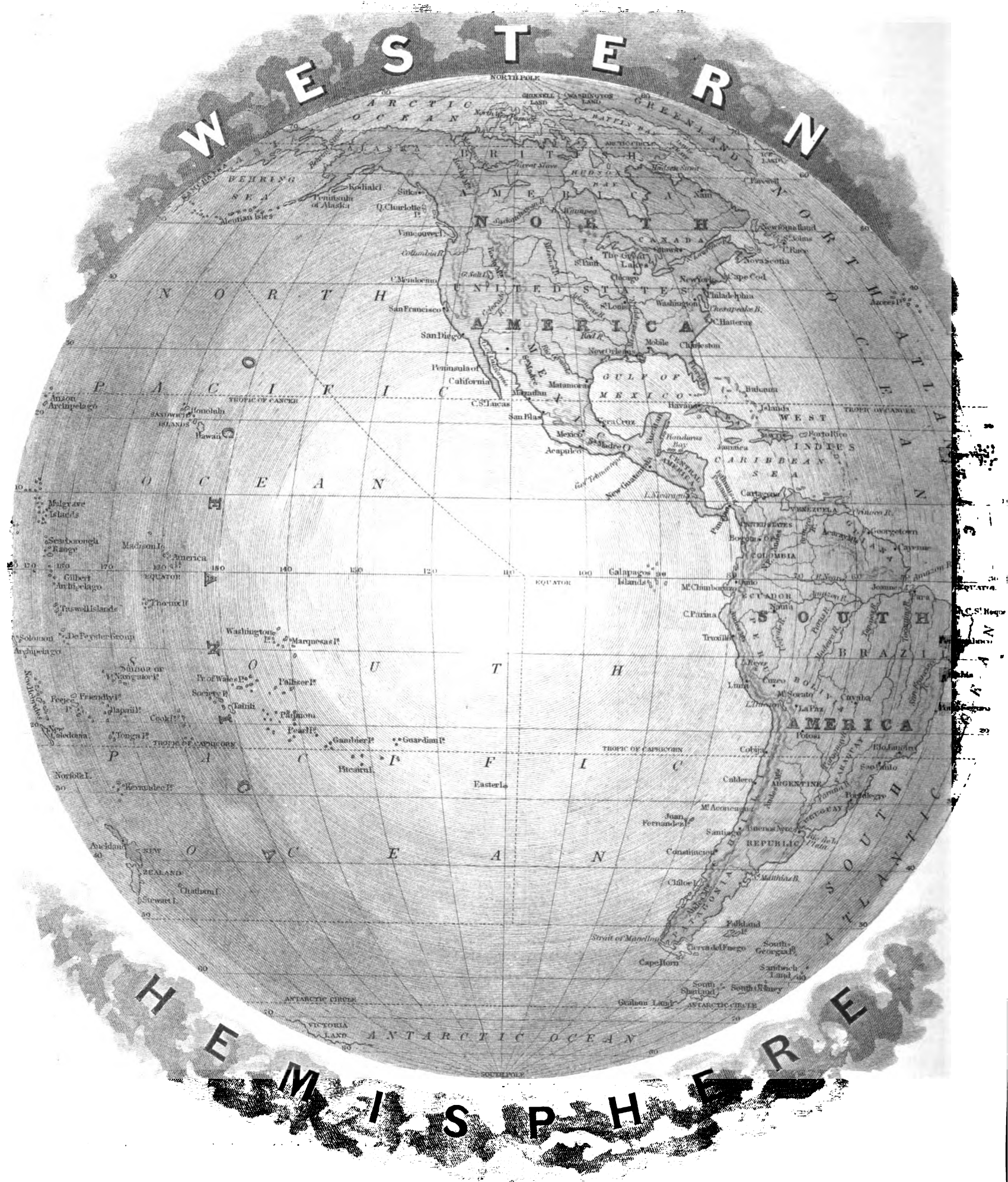
CIVILIZED.

Some nations belong to more than one of these classes. Most of the civilized nations belong to the Caucasian race. Nearly all the inhabitants of Europe, and their descendants in America and other parts of the world, belong to this class.

Civilization has made comparatively little progress among the four colored races. The Chinese and Japanese are the only nations of the Mongolian race that possess any civilization. The Ethiopian race has never produced a civilized nation. The inhabitants of Java are the only representatives of the Malay race who have reached a position above the barbarous state, and the Spanish conquerors in Mexico and Peru destroyed the only efforts at civilization by the American Indians.

Questions.—What is the next state of society after the barbarous? With what arts are half-civilized nations acquainted? Why do half-civilized nations make but little progress? What are the chief nations of this class? What striking points of difference exist between the savage man and the civilized man? What advantages may a people derive from a communication with foreign nations? Do the half-civilized nations avail themselves of this advantage? Do the civilized? What religions prevail among half-civilized nations? Among civilized nations?

What savage tribes are there in America? To which of the five races do they belong? Are there any civilized nations in America? To what class of society do most of the nations of Europe belong? Suppose each nation were to cut off all communication with other countries: would its progress be advanced, or retarded? Are there any nations which adopt this course? To what race do the civilized nations belong? What is said of civilization among the other races?



PART II.

DESCRIPTIONS OF COUNTRIES.

THE HEMISPHERES.

THE entire surface of the globe is represented by the maps of the two hemispheres:—the Eastern, and the Western.

The meridian of 20 degrees west from Greenwich is usually chosen for the dividing line between the Eastern and Western Hemispheres, though any other meridian would answer equally well.

This line was adopted because it was supposed to be the meridian of Ferro, one of the Canary Islands. Ferro was the most western land known to the ancients; the region beyond being to them one of doubt and darkness. This island is now known to be a little east of 20°.

2. The **Western Hemisphere** comprises the Western Continent, a small part of the Eastern Continent, a portion of the Antarctic Land, and numerous islands; besides a part of the Pacific, Atlantic, Arctic, and Antarctic Oceans. There is much more water than land in this hemisphere.

3. The **Eastern Hemisphere** comprises the Eastern Continent (except the north-eastern extremity), a portion of the Antarctic Land, and numerous islands; besides the Indian Ocean, and a part of the Pacific, Atlantic, Arctic, and Antarctic Oceans. There is also more water than land in this hemisphere.

4. Except the Antarctic Land, and a few small islands far out at sea, every tract of land now known is included within one of the six Grand Divisions of Asia, Europe, Africa, North America, South America, and Oceanica.

5. The globe may also be divided into a **Northern** and a **Southern Hemisphere**; of which the former contains the greater proportion of land—the latter, of water.

6. In the Southern Hemisphere there are various tracts of land lying within the Antarctic Ocean, which may be included in the general name of Antarctic Land.

Until the year 1819, no land was known to exist south of the 60th degree of South Latitude. Since that time, navigators have discovered numerous islands and bodies of land, among which are the South Shetland Islands, Graham's Land, Victoria Land, and Enderby's Land.

The most extensive tract yet known, in that part of the world, is called the Antarctic Continent, situated about 2000 miles south of Australia. It was discovered in 1840, by Captain Wilkes, of the American Navy. He sailed along the coast a distance of 1700 miles east and west.

In 1841, Captain Ross, of the British Navy, explored a line of coast (Victoria Land), extending southward to within 830 miles of the South Pole; being the nearest approach yet made to that point. He discovered, in these frozen regions, an active volcano, 12,400 feet high, which he named Mount Erebus. A little farther east, he saw an extinct volcano, which he named Mount Terror.

All these regions are barren and desolate. The land is perpetually covered with ice and snow, and the coasts are for the most part bordered by vast masses of ice. There are no inhabitants, and but few land animals; and some tracts are wholly destitute of vegetation. It has been ascertained that the ice of the Antarctic regions extends 10 degrees nearer the Equator than that of the Arctic.

Questions.—What proportion of the surface of the globe is represented by the map of the Eastern Hemisphere? By that of the Western? By both? What meridian is usually chosen for the division of the Eastern and Western Hemispheres? Could any other line be adopted? Suppose some other meridian were used for this purpose: would the map of each hemisphere contain the same portions of land and water as it does now?

Suppose the meridian of 100° of West Longitude were selected for the dividing line: in which hemisphere would South America be? Why is the meridian of 20° commonly adopted? In which hemisphere is the Island of Ferro? Why?

What bodies of land are included in the Western Hemisphere? What oceans lie partly within this hemisphere? What bodies of land are included in the Eastern Hemisphere? What ocean is entirely within it? What other oceans are partly within it? What contains the greater proportion of land: the Northern, or the Southern Hemisphere? Which contains the more water?

What is included in the term Antarctic Land? In what year did the discovery of these regions commence? Where is Victoria Land? The South Shetland Isles? Graham's Land? What is the character of these regions? Why are there no inhabitants? In which region, the Arctic or Antarctic, does the ice extend farthest towards the Equator?

Questions on the Map.

Which is the largest division of land in the Western Hemisphere? What ocean is north of this division? What ocean is East? West?

What is that portion of the Atlantic Ocean north of the Equator called? What is the portion south called? What is that part of the Pacific Ocean north of the Equator called? What is the part south called?

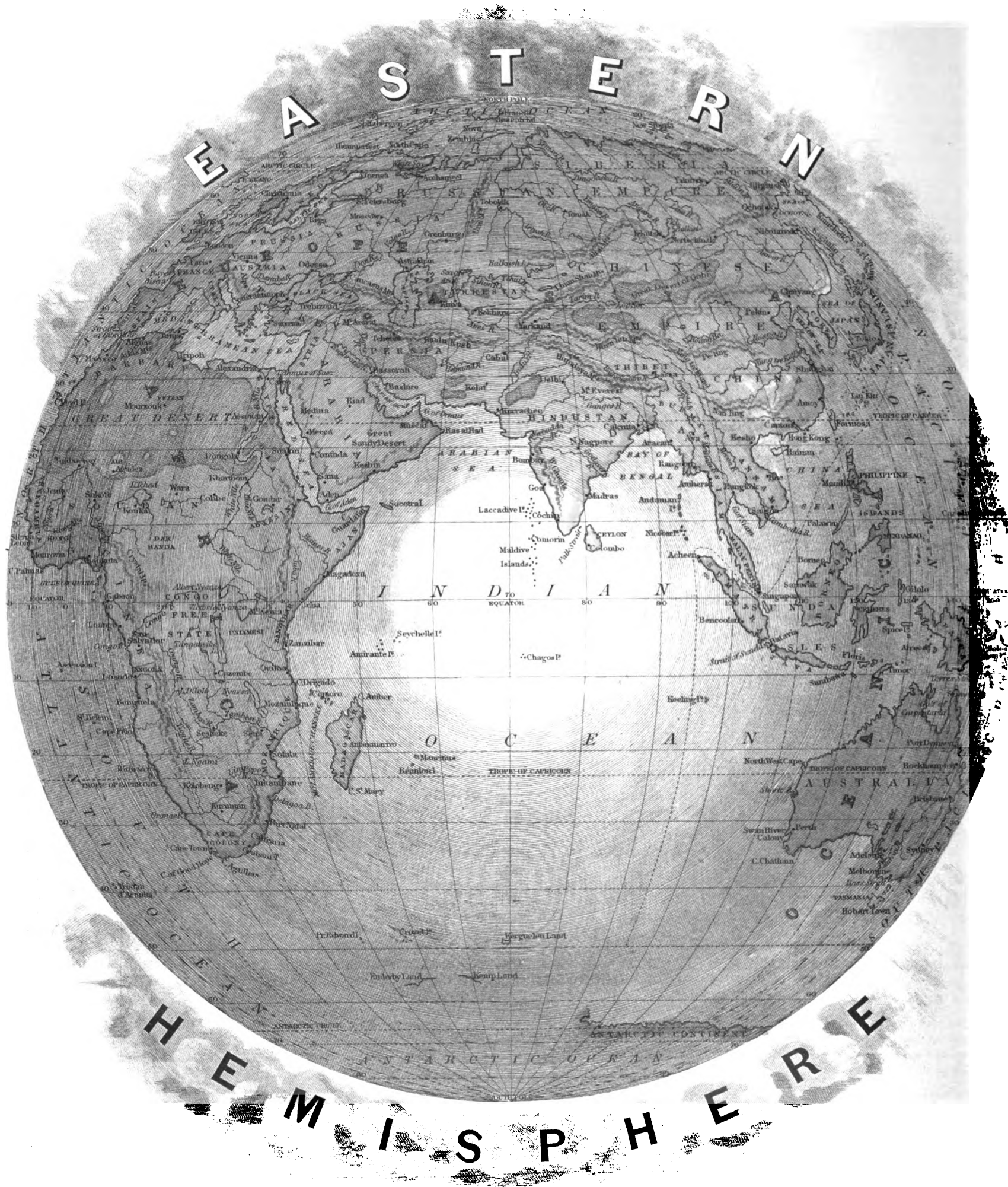
Through what strait would you sail, to go from the Pacific to the Arctic Ocean? What narrow isthmus separates the waters of the Atlantic and Pacific Oceans? The Antarctic Ocean is south of the Antarctic Circle: what land is in this ocean?

What sea and gulf lie between North and South America? Of what ocean do these bodies of water form a part? What sea is north of the Aleutian Islands? Of what ocean is it a part?

A vessel is reported to have been wrecked in Latitude 40° North, and Longitude 30° West: in what ocean did it occur? Near what land?

A United States vessel of war is ordered to cruise among the islands situated between Latitude 10° and 30° North, and Longitude 60° and 90° West: what islands are meant?

A whaling-vessel is reported in Latitude 30° South, and Longitude 80° West in what ocean is this vessel? Near what group of islands? What main-land?



THE CONTINENTS.

THE most extensive bodies of land upon the surface of the earth are the Eastern and the Western Continents.

2. The Eastern Continent, and the islands immediately adjacent, form three grand divisions: Europe, Asia, and Africa. This continent is more than twice as large as the Western.

The Grand Division of Oceanica (which is nearly all in the Eastern Hemisphere) includes Australia and nearly all the islands of the Pacific Ocean.

3. The Western Continent (sometimes called The New World), with the neighboring islands, forms two grand divisions: North America and South America, which are connected by the Isthmus of Panama.

The Eastern and Western Continents approach nearest each other at Behring Strait, which, at the narrowest part, is only 36 miles wide. A partial connection is established by the Aleutian Islands, which extend from the Peninsula of Alaska, in North America, to Kamchatka, in Asia.

4. Position.—The greatest extent of land in the two continents is north of the Equator, and in the North Temperate Zone. Only a small part is in the South Temperate, and none extends to the South Frigid Zone.

5. Climate.—The position of the continents determines, in a great measure, the climate of the five sections of which they are composed.

The three northern sections (Asia, Europe, and North America) are principally in the Temperate Zone, and extend beyond the Arctic Circle—forming almost a connected line around the North Pole. They are, therefore, colder than the two southern sections (Africa and South America), which lie chiefly within the Tropics, and are far removed from the Frigid Zone.

6. Outline.—The outline of the two continents presents some points of resemblance, and some of contrast.

1. The southern section of each continent is a peninsula, connected with the main body by a narrow isthmus. Each of these peninsulas terminates in a pointed projection towards the south.

2. An island, or group of islands, is found east of the southern part of each continent: as Madagascar, east of Africa; and the Falkland Islands, east of South America.

3. The three northern sections are deeply indented by large seas and gulfs; while in the two southern, the coast is unbroken by any large arms of the ocean. It is partly owing to this circumstance that South America and Africa have not been more thoroughly explored by Europeans.

4. The greatest length of the Western Continent is from north-west to south-east; while that of the Eastern is from north-east to south-west.

7. Surface.—The Western Continent is traversed throughout its entire length by a great mountain-system, which accompanies the line of its western shores.

8. East of this great chain is a vast plain, stretching throughout the entire length of the continent, interrupted only by the Gulf of Mexico. The eastern limits of this plain are formed by inferior mountain-systems.

9. The Eastern Continent also contains an immense mountain-system, traversing the greatest length of the main body (Asia and Europe), from the Pacific to the Atlantic Ocean.

Southward from this system extend a number of peninsulas: Farther India, Hindustan, and Arabia, in Asia; and Greece, Italy, and the Spanish Peninsula, in Europe. These peninsulas are penetrated by mountain-chains—branches of the principal system. [NOTE.—The mountain-systems of the two continents will be described in connection with the Grand Divisions.]

10. Northward from this great mountain band, a vast plain extends to the shores of the Arctic Ocean. It stretches east and west, from Behring Strait to the Atlantic Ocean—about one-third the circumference of the globe.

Questions.—What are the most extensive bodies of land upon the surface of the earth? Which is the larger of the two? Of what three sections does it consist? Of what two sections is the Western Continent composed? Where do the continents approach nearest to each other? What is the shortest distance between them? How is a partial connection established between them?

On which side of the Equator is the greater extent of land in the two continents? In what zone? Which contains the greater extent of their surface: the Torrid or the South Temperate Zone? Does any part of these continents extend beyond the Arctic Circle? The Antarctic?

What determines the climate of the continents? Why are Asia, Europe, and North America colder than Africa and South America?

Which sections of the continents are most deeply indented: the three northern, or the two southern? Why has the unbroken outline of South America and Africa, in some measure, prevented Europeans from exploring them more thoroughly?

In what direction does the chief mountain-system of the Western Continent extend? What is the character of the surface east of this system?

In what direction does the principal mountain-system of the Eastern Continent extend? What grand divisions does it cross? Name the peninsulas which extend southward from this central system. By what mountain-chains are they penetrated?

In what direction does the great plain, north of this system, slope? What is its extent? In what direction does the greatest length of this plain extend? In what direction does the greatest length of the plain in the Western Continent extend?

Questions on the Map.

Which is the largest grand division in the Eastern Hemisphere? What ocean is north of it? What ocean is east? What ocean south?

Which are the two northern divisions of the Eastern Continent? Which division is a great peninsula? What isthmus connects it with the main-land?

What great sea and bay are south of Asia? Of what ocean are they a part? Of what ocean are the seas south and west of Europe a part? Name the four great seas east of Asia. Of what ocean are they a part?

Which is the largest island of the Eastern Hemisphere? To what grand division does it belong? Name two other islands belonging to the same grand division.

In what zone is the greater part of Asia? Is any part of Europe in the Torrid Zone? Is any part of Asia south of the Equator? Is any part of Africa in the South Temperate Zone? In what zones is Australia?

To what grand division does Madagascar belong? The Japan Islands? Borneo? Tasmania? What extensive tract of land is south of Australia? Is the Antarctic Continent inhabited or uninhabited?

A bottle containing the following paper was picked up at sea, in Latitude 10° South, and Longitude 50° East: "Thrown overboard from the wreck of the ship Valparaiso, in Latitude 30° South, and Longitude 110° East;" near what islands and main-land was the bottle found? Where was it thrown overboard? Across what ocean had it drifted?

A British cruiser captured a Portuguese brig engaged in the slave-trade, in Latitude 10° South, and Longitude 10° East: in what ocean did this capture occur? Near what land?

On what ocean would a vessel sail, to go by the nearest route from Africa to the island of St. Helena? Across what ocean would a vessel sail, to go by the nearest course from Madagascar to Australia?

A vessel was captured by Malay pirates near the Equator, in Longitude 105° East: between what two great islands was this?

A vessel is wrecked in Latitude 40° North, and Longitude 150° East: in what ocean is this? The passengers and crew are saved, and escape to the nearest land: what is it?



NORTH AMERICA.

PHYSICAL FEATURES.

POSITION.—North America lies in the Western Hemisphere, in the North Frigid, North Temperate, and Torrid Zones.

It extends from 8° to 72° N. latitude and from 55° to 168° W. longitude, and is bounded by the Arctic, Atlantic, and Pacific Oceans.

2. Size.—In extent it is third among the Grand Divisions, Asia and Africa being larger. Its area is about 9,000,000 square miles.

It is more than twice as large as Europe, and more than half as large as Asia. Its greatest breadth from east to west is 3200 miles, and its greatest length from north-west to south-east is 4800 miles. It has a coast-line of about 30,000 miles.

3. Outline.—The outline is irregular; the coast-line, particularly on the east and the north, is broken by large gulfs and bays.

The general form of North America is that of a triangle. Groups and chains of islands lie near the shores, and numerous capes and peninsulas project into the surrounding oceans.

4. Surface.—The surface consists mainly of three forms of relief—the *Pacific Highland*, in the west; the *Atlantic Highland*, in the east; and the *Great Central Plain*. There are three great mountain-systems—the Rocky Mountain System, the Sierra Nevada, and the Appalachian System.

Some geographers regard the western ranges from the Arctic region to Cape Horn as one continuous mountain-system, the various chains of which are called *Cordilleras*. The name "*Cordilleras of North America*" is given to all mountain-chains west of the Great Central Plain, and "*Cordilleras of the Andes*" to chains along the Pacific coast of South America.

The *Atlantic Slope*, the *Pacific Slope*, and the *Arctic Highland* are additional and minor relief-forms. (*Mountains, plateaus, and plains are called forms of relief.*)

5. The Pacific Highland extends over the entire length of North America, and about one-third of its breadth. It includes the Plains of the Columbia, the Great Interior Basin, and the Mexican Plateau.

Questions.—Through how many degrees of latitude and longitude does North America extend? How does it compare in size with Europe? With Asia? What is its area? Define forms of relief. What is the extent of the Pacific Highland?

Its elevation varies from 800 feet (near the Arctic shores) to 8000 feet (in Mexico). The volcanoes of Mt. St. Elias and Popocatepetl are the highest peaks in North America.

The Rocky Mountains, an immense chain 5700 miles long, are on the eastern border of this Highland; and the Sierra Nevada, the Cascade, and the Coast Mountains are on its western border. Between the Pacific Highland and the Pacific Ocean is the narrow belt of lowland known as the *Pacific Slope*.

6. The Atlantic Highland extends from Labrador nearly to the Gulf of Mexico. It includes the *Labrador Plateau* and the ranges of the Appalachian System. It has an elevation of about 3000 feet.

The *Atlantic Slope* lies between this Highland and the Atlantic Ocean. In the south it widens, and where there are no mountains to continue the division, it unites with the *Gulf Plain*, which is the most southern part of the Great Central Plain.

7. The Great Central Plain lies between the Atlantic Highland and the Pacific Highland, and extends from the Arctic Ocean to the Gulf of Mexico.

It is crossed about midway by a very gradual swell of ground called *The Height of Land*, which forms the divide between the rivers of the Arctic and the Hudson Bay Systems and those of the St. Lawrence and Gulf of Mexico Systems. The *Gulf Plain* and the *Arctic Plain* are the lowest parts of the Great Central Plain.

The *Arctic Highland* is in the northern part of North America, occupying parts of the mainland and of islands in the Arctic regions.

8. Drainage.—The Rocky Mountains are the chief divide of North America. They are also the great condensers of moisture, and their supply of rain and snow forms the vast reservoir from which the largest rivers are fed.

9. There are three great systems of lakes and rivers—the Atlantic System, the Pacific System, and the Arctic System. Besides these, there are the waters of the Great Interior Basin, which have no outlet to the sea.

Questions.—What is the extent of the Atlantic Highland? What does each include? Where is the Great Central Plain? Name the three great systems of lakes and rivers. What waters have no outlet to the sea?

QUESTIONS ON THE MAP AND TEXT.

Position.—In what direction is North America from Europe? From Africa? From Asia? From Australia? Where does it approach nearest to Asia? How many degrees of latitude are there between the Arctic Circle and the North Pole? Between Point Barrow (72° N.) and the North Pole? What does Davis Strait connect, and what does it separate? Hudson Strait? What does the Isthmus of Panama connect, and what waters does it separate? When it is noon in Washington (77° W.), what time is it in Philadelphia (75° W.)? In San Francisco (122½° W.)? In New Orleans (90° W.)? (See *Standard Time*, Page 62, ¶ 5, 6, 7.)

Size.—Which Grand Divisions are smaller than North America? What is its breadth on parallel 60° N. Its length from north-west to south-east? (*Measure on map, using the Scale.*)

Outline.—Name and locate five large peninsulas. Five important islands. If you wish to show that North America resembles a triangle in form, where will you fix the points of the angles of the figure? What marine currents follow the coast of North America? Which of them are warm currents? Which is deeper 50 miles from shore on parallel 30° N.—the Atlantic Ocean or the Pacific? Where is the Atlantic deeper 600 miles out—off Cape Hatteras or off Cape Sable (Florida)? Off Cape Cod or off Cape Sable (Nova Scotia)?

Surface.—Of what three forms of relief does North America mainly consist? Locate each. Name the three minor relief-forms. Locate the most elevated points of the Pacific Highland? In what part of the Highland is the Rocky Mountain System? What mountains are on the western border of the Pacific Highland? What lowland is west of it? What plateau is in the Atlantic Highland? What mountain-system? Where is the Atlantic Slope? The Height of Land? The Arctic Highland? Of what two great slopes does the Central Plain consist?

Lakes and Rivers.—Into what waters do the rivers of the Great Central Plain flow? Which is the greatest of these rivers? Where is the land lower—at the northern end of Lake Winnipeg, or at the southern part of Hudson Bay? How can you tell? Locate the largest salt-water lake in North America. Locate the lakes north of parallel 50° N., and name the outlet of each.

Climate.—What current affects the climate of the north-west coast? Of Labrador? Of the Atlantic coasts? Is Labrador colder or warmer than Sitka? Why? How far is the Gulf Stream from Cape Hatteras? From Cape Cod? To which is the Japan current (Kuro Siwo) nearer—Alaska or San Francisco? Vancouver Island or the mouth of the Columbia River?

Productions and Animals.—Name the most important vegetable productions. The most important minerals. (*Let each scholar name a vegetable or a mineral production, and tell where it is obtained.*) Name the principal grazing-products. Where are the fur-bearing animals found? Name the most important.

Are wild animals more numerous in the Eastern or in the Western part of North America? Why? (*Let each scholar name an animal of North America, and tell where it is found.*) Why are certain animals hunted? (*Give various reasons, according to the kind of animal named.*) Name the most useful domestic animals.

[NOTE TO TEACHERS.—A map modeled to show the relief of North America, or of any other Grand Division of which the lesson treats, would give a proper idea of the surface of the country, its elevations, and its depressions. The teacher can readily model such a map with molder's sand, which, when slightly dampened, is very easily worked. The position and the relative height and extent of the mountains and their highest points should be indicated, and the scholars should make relief-maps, so that their ideas of forms of relief may be as clear as possible, and their geographical knowledge a system of thought and comparison, not merely a repetition of words that have little or no meaning.]



The subdivisions of the Atlantic System are the Hudson Bay, the St. Lawrence, and the Gulf of Mexico Systems. The last-named includes the Mississippi System.

The Mississippi, with its numerous tributaries, is the most important river of North America. The northern part of the Great Central Plain abounds in lakes of the St. Lawrence System, the Hudson Bay System, and the Arctic System. The five great lakes of the St. Lawrence contain about one-fourth of all the fresh water on the globe. Great Salt Lake is the largest salt lake in North America.

10. Climate.—As North America lies in the Torrid, Temperate, and Frigid Zones, it has every variety of climate.

The climate of the Pacific Slope is milder and has a more uniform temperature than that of the Atlantic Slope in the same latitude, owing to the influence of the warm Japan current (Kuro Siwo, or *Black Water*) and of warm winds from the Pacific.

In many sections the temperate regions of North America present peculiar variations of temperature; the winters are very cold, the summers very hot, and the changes sudden, so that the climate is unusually severe for the Temperate Zone.

The Pacific Highland has, in general, a very dry climate, with little rain at any season. The rainfall on the Pacific Slope, on the Atlantic Highland, and on the Atlantic Slope is abundant. There are certain nearly rainless tracts on the tablelands of Mexico and Central America and in the Great Basin.

11. Productions and Animals.—The most important *Vegetable Products* are those of the various lowland plains, including grain, coffee, cotton, fruits, lumber, rice, sugar, and tobacco. The richest *Mines* of ore are, as a rule, in the mountainous regions; those of coal and other useful minerals are partly in the plains and plateaus.

12. The larger wild animals of North America are now found chiefly in the north and in the west. Live-stock, furs, and grazing-products are the principal *Animal Productions*.

All the domestic animals, except the turkey, were originally of European stock, brought to America by the white settlers.

Questions.—Name the subdivisions of the Atlantic System. What is said of the Mississippi and the St. Lawrence? Of the five great lakes? What is the climate of the Pacific Slope? Of the Pacific Highland? What is said of the rainfall? Of the vegetable productions? The minerals? Of the wild animals of North America? Of the domestic animals? What is the population of North America?

13. Inhabitants.—The population of North America is over 88,000,000. It is composed of Indians, descendants of European settlers, European emigrants, freedmen and others of African descent, Eskimos, Chinese, and persons of mixed races.

The Indians number about 5,000,000; the negroes, about 8,000,000; the Chinese, about 105,000; and the whites, over 75,000,000. The Indians belong to the American, or Red, race; the whites, to the Caucasian, or White, race; the negroes, to the African, or Black, race; and the Chinese and the Eskimos, to the Mongolian, or Yellow, race.

POLITICAL DIVISIONS.

14. North America consists of the following divisions: the *United States* (including Alaska), *British America*, *Danish America*, *Mexico*, *Central America*, and the *West Indies*.

BRITISH AND DANISH AMERICA, AND ALASKA.

15. These three divisions constitute one-half of North America.

The regions bordering upon the Arctic Ocean are among the most dreary and desolate on the face of the earth. The shores are covered with eternal snows, and the entire surface of the sea with large fields and huge masses of floating ice.

16. Notwithstanding the fearful dangers encountered in these frozen regions, the Arctic Ocean has been perseveringly explored for 300 years, partly because of the hope of finding a passage from the Atlantic to the Pacific, and partly for scientific discovery.

The voyage to India and China, from any Atlantic port, is now made by way of Cape Horn, the Cape of Good Hope, or the Suez Canal. The distance by way of the Arctic Ocean is only about half as great; hence these repeated attempts to find a "North-west Passage." That such a passage exists was proved by Capt. McClure, of the British Navy, who in 1852 forced his way through it; but so perilous and difficult is its navigation that it can never be of any commercial value.

Questions.—What four races in North America? Which is the aboriginal race? How many negroes are there in North America? Indians? Chinese? Caucasians? Name the Political Divisions of North America. Which of them border on the Arctic Ocean? Describe the Arctic regions. Why has the Arctic Ocean been so perseveringly explored? What results have followed these explorations?

17. Discoveries in the Arctic Ocean.—Most of the discoveries have been made by British and American navigators.

Grinnell Land was discovered in 1850, by the Expedition under command of Lieut. De Haven, sent out in search of Sir John Franklin. In 1852, Dr. Kane, of the U. S. Navy, penetrated as far as 82° 30' North Latitude, where he claims to have discovered an open Polar Sea, free from ice. In 1861, Dr. Hayes reached a point still farther north.

Since then several expeditions, mostly by way of Behring Sea, have been undertaken, but, so far, with no important or practical results either in a scientific or commercial point of view.

18. Climate.—It was formerly supposed that the climate of nearly all this territory was so severe that the country must forever remain a desolate waste.

The Valley of the St. Lawrence, and part of the Basin of the Saskatchewan, were regarded as the only cultivable regions. It is found, however, that the country south-west of Hudson Bay is well adapted for agriculture, and is capable of sustaining a considerable population. The climate at and near Sitka is also mild.

19. Vegetation.—There is scarcely any vegetation, in the north, capable of supporting man. In the cultivable districts of the south, wheat and other grains common to the Temperate Zones are raised.

Quantities of mosses, lichens, berries, willows, and shrubs, grow in the cold districts of the north, upon which the numerous birds and land-animals subsist.

In Greenland, a very small red plant grows upon the surface of the snow. When first seen it was thought to be *red snow*, and is now generally called by that name.

20. Animals.—These frozen regions of the north, though thinly peopled, abound with animal life, both on land and in the sea. Their chief value, indeed, to the European governments, by which some of them are held, is in the trade in oil, whalebone, and skins, which are thus supplied.

Within the Tropics, land-animals attain the greatest size; but the largest sea-animals are found in or near the Polar waters. The Great Rorqual (a species of whale found in the Northern Atlantic,) is the largest of living animals, being sometimes from 80 to 100 feet long.

The lakes and seas abound with fish, and myriads of water-fowl hover upon the coast. The principal amphibious animals are the seal and walrus. The walrus is sometimes eighteen feet long, with tusks three feet in length.

The grizzly bear, the largest and most dangerous of the bear tribe, is found among the Rocky Mountains, in the southern districts. The white, or Polar bear, inhabits the northern coasts.

The buffalo, moose, elk, deer, and reindeer, are numerous; and immense numbers of the smaller fur-bearing animals—as the fox, wolf, raccoon, otter, marten, and beaver—are yearly taken by the trappers.

21. Inhabitants.—Except in Iceland and the British Provinces, the inhabitants are chiefly Indians and Eskimos. The few Europeans are mostly government officers, or persons employed in the fur trade.

The Eskimos inhabit the northern districts near the coast. They belong to the Mongolian race, and are of low stature and filthy appearance. They derive their support principally from the sea.

They eat the flesh of the bear and reindeer, and clothe themselves with the skins. The oil of the whale, seal, and walrus, affords them light during the long night of winter; and they consume the *blubber* (or fat) for food.

The Eskimo frames his canoe with the bones of the whale, and covers it with the skin of the seal. Instead of the reindeer, he harnesses a team of dogs to his sledge, by which he is rapidly drawn over the fields of ice and snow. The hardy native does not hesitate to attack the walrus and the formidable Polar bear, which are encountered on the fields of ice.

Questions.—By whom have most of the discoveries in the Arctic regions been made? Mention some of the results of American explorations. What is the climate of these regions? What is the character of the vegetation? What animals are numerous? Name some of the principal land animals. Why is this country valuable to Europeans? Who inhabit these regions? Describe the Eskimos?

BRITISH AMERICA.

22. British America comprises all of North America north of the United States, except Alaska, Greenland, and Iceland. It consists of eight States or provinces, five districts, and two extensive territories. One of these States—**Newfoundland**—is a separate province. The rest of British America is united under the name **Dominion of Canada**.

[See description of these provinces, pages 63 and 64.]

The districts and territories comprise about three-fourths of the Dominion in extent. They were formerly all included under the name North-west Territory, but this extensive tract has since been divided into five districts and two territories, each with a separate name.

ALASKA.

23. This country was purchased by the government of the United States from Russia in 1867. It has an area of about 577,000 square miles, or more than ten times that of the State of Illinois, and has hitherto been but partially explored.

North of the Peninsula of Alaska the coast is low and marshy, but south of this Peninsula it is bold and mountainous, often consisting of precipitous cliffs which descend abruptly to the sea. Groups of volcanic islands skirt this part of the coast, and between them and the main land is a remarkable interior channel, safe for steamboat navigation at all times. The Yukon River is navigable for 1500 miles, and is nearly as large as the Mississippi.

Extensive forests of pine, cypress, spruce, poplar, and willow cover much of the country. Deposits of valuable minerals exist in the mountain ranges.

An astonishing quantity of animal life is supported in the forests, the streams, and the island passages of the sea. The otter, beaver, seal, ermine, sable;—foxes, bears, wolves, and other fur-bearing animals, are found in great numbers. Myriads of birds fill the woods in summer, while the waters swarm with cod, halibut, salmon, and many other varieties of fish.

About five hundred whites and seventy thousand Indians and Eskimos constitute the population.—The latter are filthy and degraded, and live in huts wholly or partly under ground. Sitka, on Baranoff Island, is the seat of government.

DANISH AMERICA.

24. Danish America includes Greenland and Iceland.

25. Greenland.—It is not yet known whether Greenland is an island, or a cluster of islands joined together by ice.

The coast is high and rocky, and the more elevated portions are covered with perpetual snow and ice. But recent explorers have found in summer, even at the far north, grassy meadows inhabited by reindeer and the musk-ox, by bees and butterflies.

The Danish Governor resides at Lichtenfels on the west coast. The Moravian missionaries have also settlements on this coast and on the opposite coast of Labrador, and many of the natives have been converted to Christianity.

26. Iceland.—This island is of volcanic formation. Ranges of high and rugged mountains border the coast, while the interior is a dreary desert of volcanoes, ice-clad mountains, or fields of lava.

The most famous of the volcanoes is Mount Hecla. There are also boiling springs (called Geysers) which throw up water, steam, and even large stones to a great height.

The settlements are all near the coast. Reikiavik is the principal town. The Icelanders are of European origin, and are generally well educated.

Notwithstanding its name, Iceland is not so cold a country as Greenland. It was called Iceland by a Norwegian pirate, who, on his first visit, saw a bay filled with ice which had floated there from Greenland.

Greenland was so named by an Icelandic chief, who, for some crime, was obliged to flee from his native land. To induce his countrymen to follow him to Greenland he falsely represented it as superior in fertility to Iceland.

Questions.—What does British America comprise? What province is not included in the Dominion of Canada? What is said of Alaska? Describe the coast. Mention some of the animals. By whom is it inhabited? What does Danish America include? Describe Greenland. Where have the Moravian missionaries settlements? Describe Iceland. Which is the colder country, Iceland or Greenland?



Outline.

Which has the more irregular outline: North or South America? By what oceans is North America surrounded? Which of these is on the north? By what strait is it connected with the Pacific? Is there any communication with the Atlantic?

What land is east of Baffin Bay? Is Greenland attached to the main-land of the Continent? In what direction does Greenland extend? What cape at the southern extremity? In what direction is Iceland from that cape?

On the eastern coast of North America there are five great branches of the Atlantic Ocean: which of these are called gulfs? Which one is called a sea? Which are called bays? Do you perceive any reason why some of them should be called bays, and others gulfs and seas? Name the only large branch of the ocean on the western coast.

By what strait is Baffin Bay entered from the Atlantic? By what strait is Hudson Bay? By what land is that bay surrounded? By what island and peninsula is the Gulf of St. Lawrence partly enclosed? What cape at the south-eastern extremity of Newfoundland? At the south-western extremity of Nova Scotia? What waters surround Newfoundland? X

By what two peninsulas is the Gulf of Mexico partly enclosed? In what direction does the Peninsula of Yucatan extend? By what islands is the Caribbean Sea separated from the Atlantic? What land separates it from the Pacific?

What two peninsulas on the western coast of North America? In what direction do they extend? What cape at the southern extremity of California? What chain of islands extends from the Peninsula of Alaska to that of Kamchatka? (See map of the Western Hemisphere.) Name the principal islands on the western coast of British America and Alaska. To what country does Vancouver Island belong? Where is the Gulf of Georgia? What strait connects it with the Pacific Ocean?

Surface.

What three mountain-systems are there in North America? Do they follow the general direction of the neighboring coast? In what direction, then, does the Rocky Mountain System extend? The Appalachian System? Which of the three systems is the longest? What mountain-system extends from the Isthmus of Panama to the Arctic Ocean? What name is given to the southern part of the principal chain? To the northern part? What system follows the coast, from Cape St. Lucas to Alaska? What two lofty peaks in Alaska does it contain? Between what two gulfs does the Appalachian System extend? In what range is Mount Brown?

Lakes and Rivers.

Into what three sections is North America divided by the mountain-systems? Which section is the most extensive? Which, then, contains the largest rivers? From what mountains do the rivers of the Atlantic Slope flow? In what direction?

From what mountains do the largest rivers of the Pacific Slope flow? In what general direction? Why? Into what ocean? Which of them is in Alaska? Which flows into the Gulf of California? Into the Gulf of Georgia?

Do the rivers of the Central Plain all flow in the same general direction? Why? Where is this plain divided? Towards what great gulf does the southern half slope? Name the principal river of this southern slope. What other large river flows between Mexico and the United States? Into what gulf do these rivers flow?

What great river, in the northern half of the Central Plain, flows into the Arctic Ocean? In what mountains does it rise? What name does it bear in the upper part of its course? Name three large lakes with which it is connected. Does any part of this river rise on the west side of the Rocky Mountains? Name the tributaries of the Mississippi River.

What is there on the map which would make you think that the land around Hudson Bay slopes towards it? What rivers flow into Hudson Bay? What lake empties into Hudson Bay through Nelson River? What great river flows into that lake? What great river and chain of lakes flow into the Gulf of St. Lawrence?

The following rivers rise in the Rocky Mountains—name the waters into which they flow: the Columbia, Fraser, Colorado, Mackenzie, Saskatchewan, Missouri, Rio Grande. Can you reach the Appalachian Mountains by following a tributary of the Mississippi? Can you also reach the Rocky Mountains by following some of its tributaries?

Climate and Vegetation.

[NOTE.—These questions require a thorough understanding of the principles stated in the lessons on Climate and Vegetation, page 12.]

On which side of the Equator does North America lie? Does the climate, then, become warmer or colder, as you go north? In what zones is North America situated? In which zone is the greatest extent included? Are the climate and productions of North America, then, generally those of the Torrid or Temperate Zone?

In what part of the country would you expect to find tropical productions? In advancing towards the north, would you find the vegetation becoming more or less luxuriant? In what regions would you expect to find the vegetation almost entirely cease? Where would you expect to find grain most extensively produced?

Are the summers generally hotter or colder in the interior of a country than on the coast? Where are the winters usually more severe: upon the coast, or in the interior? Where, then, would you expect to find the hotter summer: on the Atlantic coast, or upon the banks of the Mississippi River, in the same latitude?

Political Divisions.

What three divisions occupy the northern half of the country? What great country lies south of British America? What one between the Pacific Ocean and Gulf of Mexico? Between the Caribbean Sea and the Pacific Ocean?

What group of islands between North and South America? Name the two principal political divisions of North America. Which of these is the more valuable country? Why? What divisions are in the Torrid Zone? Are all of the West India Islands in the Torrid Zone? In what part of British America is British Columbia? Labrador? Manitoba? Keewatin?

Miscellaneous.

What proportion of North America is occupied by British and Danish America and Alaska? Why is this not, generally, a habitable region? What parts are capable of supporting a numerous population?

What is the chief value of these countries to the governments by which they are held? If there is not vegetation enough to support man, how do the animals live? Name the principal land animals. What animals are amphibious? What is an amphibious animal?

Where is Reikiavik? Sitka? Would you find any white people living in these towns? As the vegetation is scanty, upon what do they subsist? Is Iceland in the Frigid or North Temperate Zone? Is any part of Greenland in the Temperate Zone?

Which is the colder country: Iceland, or Greenland? How, then, came they to receive such erroneous names? Where is Lichtenfels? Where are there any Moravian settlements? Where are the settlements in Greenland and Iceland: in the interior, or on the coast? Why? What can you say of the animal life of Alaska?

Why have not the various bodies of land in the Arctic Ocean been more thoroughly explored? For what purpose have most of the expeditions been sent into these seas? Has the North-west passage ever been made? Does such a passage exist? Who claims to have discovered the open Polar Sea? Where is Grinnell Land? Why is it so called? What other ocean has a similar character to that of the Arctic?

Who inhabit the northern coasts of North America? How do they live? Are they of the same race as the Indians? As the inhabitants of Iceland? What valuable articles do we obtain from these regions? Where is Nain? Mount Hecla? Disco Island? Washington Land? Upernavik? (On what island is Victoria?)

What mountains would you cross, in going from the Atlantic to the Pacific Ocean, on the 40th parallel of latitude? What lakes and bay, going from the Gulf of Mexico to the Arctic Ocean, on the meridian of 10° West Longitude from Washington? Following the same meridian south, what peninsula and country would you cross? What ocean would you reach? Would you cross a level or mountainous country, in going from the Gulf of Mexico to the Arctic Ocean, on the meridian of 20° west from Washington?

Bound each political division of North America. Sketch a map of North America, locating the principal mountain-chains and rivers. (See Map Drawing, page 121.)

THE UNITED STATES.

PHYSICAL FEATURES.

POSITION.—The United States (excluding Alaska) occupies the middle part of North America, and thus has a favorable position, being equally removed from the blighting cold of the Frigid Zone and the enfeebling heat of the Torrid Zone.

It extends from 24° 30' to 49° N. latitude, and from 67° to 124° W. longitude.

2. Size.—It is nearly as large as Europe, and about three-eighths as large as the whole of North America. In point of size it ranks fourth among the great powers of the world, only the Russian, the British, and the Chinese Empires being larger.

Its extent east and west is about 2700 miles, and north and south about 1600 miles. It has an area of 3,000,000 square miles and a coast-line of about 14,000 miles.

3. Outline.—The Atlantic coast is very irregular, with numerous indentations; the Gulf coast is more regular; while the Pacific coast is comparatively unbroken. The fine harbors and the great lakes and rivers compensate for the want of extensive inland seas.

There are numerous islands along the coasts, and their structure and position indicate that they were once parts of the mainland, and that they have been detached from it either by changes of level or by the action of the surrounding waters.

4. Surface.—The principal forms of relief are the three main forms of North America—the *Pacific Highland*, the *Atlantic Highland*, and the *Great Central Plain*. The three great mountain-systems of North America cross the United States north and south.

The minor relief-forms are the Atlantic Slope, the Pacific Slope, and the Gulf Plain.

The United States includes the widest and highest portion of the Pacific Highland, the greater part of the Atlantic Highland, the southern slope of the Great Central Plain, and the whole of the Atlantic Slope.

5. In the United States, the *Pacific Highland* includes the Sierra Nevada and the Rocky Mountains, and the great plateau surmounted by them.

It varies from 400 to 1000 miles in breadth, and has an average elevation of 5000 feet. It includes numerous mountain-chains, mostly running north and south, and the intervening table-lands and valleys. Many of its sections are famous for the great variety and beauty of their scenery.

It is naturally divided into three regions—the *Plains of the Columbia* (average elevation, 2000 feet), the *Colorado Plateau* (8000 feet), and the *Great Interior Basin* (4500 feet).

The *Great Interior Basin* lies between the Wahsatch Mountains and the Sierra Nevada, and extends also to the southern extremity of California, where it is, in some places, below sea-level. It has many fertile valleys, but its general character is that of a desert.

The *Plains of the Columbia* are north of the Great Basin. They are characterized by volcanic table-lands, but some regions contain beautiful, verdant valleys.

East of the Rocky Mountains, the Pacific Highland slopes so gradually, and seems so nearly level, that this eastern section is known as *The Great Plains*. (See page 30.)



Questions on the Map and Text.

Position.—Name the natural boundaries of the United States. In which hemisphere is it situated? In which zone? Which is farther north, the extreme north-eastern or the extreme north-western part? When it is noon in San Francisco (122° W.), what time is it in Philadelphia? In New Orleans (90° W.)? In Boston (71° W.)? In Washington (77° W.)? In what direction from the mouth of the Columbia is the source of the Mississippi? How many degrees from the North Pole is the extreme north-

ern limit of the United States (excluding Alaska)? How many degrees from the Arctic Circle? How many degrees from the Tropic of Cancer is the southern limit.

Size.—What is the length of the United States parallel 40° N.? The breadth on the meridian 97° from Greenwich? (Measure by Scale.) What is its length of coast-line?

Outline.—Which is the more irregular boundary—the northern or the southern? Which is the more irregular coast-line—the Atlantic or the Pacific?



waters does the Strait of Juan de Fuca connect? Locate the most western cape of the United States. The most eastern. The most southern. Locate three peninsulas. Which is deeper 700 miles out from the coast in 40° N. latitude—the Atlantic Ocean or the Pacific Ocean?

Surface.—Which is lower—Lake Erie or Lake Ontario? Lake Michigan or Lake Huron? How can you tell? Name the forms of relief. Is the Mississippi Basin highland or lowland? In what direction does it slope from the Rocky Mountains? From the Alleghany Mountains?

Drainage.—Into what waters do the rivers of the Central Plain flow? In what mountain-range do tributaries of the Mississippi, Columbia, and Colorado rise? Name five rivers of the St. Lawrence System. Five of the Gulf of Mexico System. Five of the Atlantic System (not in the Hudson Bay, St. Lawrence, or Gulf of Mexico Systems). Four of the Pacific System. Which is the largest of the five great lakes? The smallest? Which is the right bank of the Mississippi—the eastern or the western? Where is the head of Lake Champlain? Of Lake Ontario? Where is the Gulf Plain?

Climate.—In what respect has the United States a favorable position? How is the climate of the Pacific Slope modified? What current is in the Atlantic Ocean?

Productions and Animals.—Name the most important vegetable productions. The most important minerals. (Let each scholar name a vegetable or a mineral production, or an animal, and tell where it is found.) Where is the great cotton region? The mining region? The lumber region? The pasture region? Name five gold regions. Five silver regions. Ten coal regions.



THE FALLS OF NIAGARA.

6. The *Pacific Slope*, in the United States, includes especially the low valleys and parks of California, Oregon, and Washington, and, in popular description, the whole area which is drained into the Pacific Ocean.

Much of the country west of the Sierra Nevada and Cascade Mountains is exceedingly fertile, and is capable of sustaining a dense population.

7. The *Atlantic Highland*, south of the St. Lawrence, consists of the Appalachian System and adjacent plateaus.

It has an average elevation of about 2000 feet, and its breadth varies from 150 to 200 miles. It descends very gradually to the plain on the west, more abruptly to the Atlantic on the east, on which side it is bordered by a continuous line of rock called the *Granite Ledge*.

8. The *Atlantic Slope* proper has a lowland and an upland region.

For about 100 or 150 miles from the base of the mountains, the land has a general elevation of about 1000 feet, with a hilly and broken surface. The coast district, or "tide-water region," is low and flat, rarely rising more than 200 feet above the ocean. South of the Hudson River, this district has an average width of from 30 to 150 miles. North-east of the Hudson River (in New England), the hilly country extends nearly to the ocean; so that the flat district is an unimportant feature.

9. The *Rocky Mountain System* stretches nearly across the country, at an average distance of 800 miles from the Pacific Ocean.

The loftiest peaks (in the United States) are Mount Harvard (14,452 feet), Uncompahgre Peak (14,408 feet), Gray's Peak (14,341 feet), Long's Peak (14,271 feet), and Pike's Peak (14,147 feet). The surrounding plateau is so high that they rise only about 8000 feet above it. There are thirty-seven peaks in Colorado alone more than 14,000 feet above the sea-level.

10. The *Sierra Nevada System* also extends across the country, near the Pacific coast. The Sierra Nevada and the Cascade Mountains are essentially one chain.

The highest peak, Mount Whitney (14,898 feet), and the most massive portions of this chain lie south of Lake Tahoe (latitude 39° N.); all the higher peaks (in the United States) which lie north of this point are sharp volcanic cones, the highest

of which are Mount Shasta (14,442 feet) and Mount Rainier (14,444 feet). Lava covers more than 150,000 square miles. These volcanoes are now all apparently extinct.

There are numerous volcanoes in Alaska, the highest of which is Mount St. Elias (19,500 feet). Those on the continent are believed to be extinct. The Aleutian Islands are but the summits of a great chain of volcanoes which rise from the ocean's bed. Several of these are now active.

Between the Sierra Nevada System and the ocean are numerous lower chains, known as the *Coast Ranges*; the higher peaks are from 4000 to 8000 feet. Their western slopes are mostly clothed with very dense forests, and among them are some of the most beautiful and fertile valleys in the country.

The western slope of the Sierra Nevada and Cascade Range is clothed with evergreen forests, which, in regard to their density and the height and size of their trees, are the grandest forests on the globe. The eastern slope is very much drier and with scantier vegetation.

Between the Sierra Nevada and Rocky Mountains are numerous mountain-chains, more or less detached from each other, and rising from the plateaus. Some have scanty forests; others are nearly treeless.

11. The *Appalachian System* is almost wholly confined to the United States. It extends from the north-eastern border nearly to the Gulf of Mexico.

It consists of several parallel ranges, of which the Alleghany Mountains are the highest. The average width of the system is 60 miles, and the average elevation from 2000 to 3000 feet. The highest peaks are Mitchell's Peak (6711 feet), in North Carolina, and Mount Washington (6286 feet), in New Hampshire.

These mountains are in general clothed to their summits with forests containing a greater variety of trees than any other forests of temperate climates.

12. The *Central Plain* is a part of the Great Central Plain of North America (see page 23), and embraces the lowlands of the Mississippi Basin, or Valley, a part of the Basins of the St. Lawrence and the Red River of the North, and the Gulf Plain.

The *Mississippi Basin* extends from the summits of the Rocky Mountains to those of the Alleghanies, and occupies nearly one-half the area of the United States. It includes a large part of the Atlantic and the Pacific Highlands and of the Great Central Plain. It slopes eastward from the Rocky Mountains, westward from the Alleghanies, and southward from The Height of Land.

Questions.—Name the principal forms of relief into which the surface of the United States is divided. The minor relief-forms. What does the Pacific Highland include? Into what three regions is it naturally divided? Describe the Great Interior Basin. What does the Pacific Slope include? Describe the Atlantic Highland. The Atlantic Slope. Name the three principal mountain-systems.

Questions.—In which system are the highest summits or peaks? Name five of the highest peaks of the Rocky Mountain System. Five of the Sierra Nevada. Two of the Alleghanies. What is said of the volcanoes of the United States? Describe the vegetation of the various mountain-systems. What does the Central Plain comprise? Describe the Mississippi Basin.

The soil of the Mississippi Basin is, in general, very rich. The most important exception to the fertility of this region is a dry plateau along the base of the Rocky Mountains, stretching eastward 400 miles, with an elevation of 4000 feet.

Illinois, the southern part of Wisconsin, and the country west of the Mississippi River as far as the Great Plains, consist mostly of prairie land.

The *Prairies* are the great grassy plains of the Central States. They are treeless except near the rivers, where they are well wooded. They have a rich soil, with a thick growth of grass. In some parts the surface is level; in others, rolling.

The *St. Lawrence Basin* is a well-wooded, fertile region, from 300 to 500 feet in elevation. The *Valley of the Red River of the North* is included in the Saskatchewan Basin, and its waters flow into Hudson Bay. The *Gulf Plain* is the extreme southern part of the Central Plain.

13. Drainage.—The lakes and the rivers belong to two great systems—the Pacific System and the Atlantic System. The waters of the great Interior Basin have no outlet to the sea.

The most important rivers of the Pacific System are the Yukon, the Columbia, and the Colorado. As the Rocky Mountains—which are the main watershed, or divide, of the United States—are nearer to the Pacific Ocean than to the Atlantic, the longest rivers of the country flow into the Atlantic.

The Mississippi and its tributaries form the most extensive uninterrupted river-navigation in the world: small steamboats can pass from the Great Falls of the Missouri to the Gulf of Mexico, a distance of 3000 miles.

The St. Lawrence is the only outlet of the five great lakes. The Basin of the Mississippi is more than twice as large as the Basin of the St. Lawrence, yet the latter river discharges into the sea twice as much water as the former.

The rivers of the Atlantic Slope are swift in the North, and slow in the South on account of the increasing width of the Slope toward the south. They are usually navigable to the edge of the upland country. This point, therefore, determines the position of many important towns.

14. Climate.—The climate is such as belongs to the middle and the southern parts of the North Temperate Zone.

The South has hot summers and mild winters. Farther north, the contrast between the seasons is greater; the winters are very cold, and the summers very warm, although not so warm as those of the South. The Atlantic Highland and Slope have winters much colder than those of the Pacific Slope in the same latitude.

The Pacific Highland has a very dry climate, the south-west winds from the Pacific having lost their moisture before reaching the great plateaus of the West. On the Pacific Slope, owing to the influence of the Japan Current and warm westerly winds, the climate is mild and equable. This region has a rainy season, including winter and spring, and a dry season, lasting the rest of the year.

The Great Plains are so far inland that they receive little moisture from ocean-winds, and have, therefore, a deficient rainfall. The Atlantic Highland and Slope and the Central Plain are well supplied from the Atlantic Ocean, the Great Lakes, and the Gulf of Mexico, and their rains are frequent and copious, and are distributed throughout the year. (See page 12.)

15. Productions and Animals.—The vegetable productions include many semi-tropical plants, in addition to all the varied vegetation of the Temperate Zones.

The Mississippi Valley is the great agricultural region of the United States; but wheat, Indian corn, rye, oats, and barley are raised in all parts of the country. The white potato succeeds best in the North. Its place is supplied in the South by the sweet potato. Rice grows in great abundance in the South, in the marshy tracts along the coast. In the extreme South, sugar is an important production; and oranges, lemons, and other tropical fruits are raised in abundance.

Tobacco is raised in most of the States east of the Rocky Mountains, but principally in Kentucky and Virginia. Much, if not most, of the cotton used by mankind is raised in the Southern States. Hemp and flax thrive in various sections.

The mineral resources of the United States are extraordinary. The deposits of gold, silver, quicksilver, copper, lead, and petroleum are of enormous value, and coal, and iron are so extensively found that the supply seems inexhaustible.

Questions.—Describe the Prairies. Name the two principal systems of lakes and rivers. Which rivers have no outlet to the sea? Name the principal rivers of the Pacific System. What is said of the navigation of the Mississippi and its tributaries? Describe the St. Lawrence. What is said of the rivers of the Atlantic Slope? What is said of the climate of each section? Of the rainfall?

Large wild animals—wild-cats, wolves, bears, bison, and deer—are still found in some thinly-settled regions, but they are fast disappearing. Great numbers of domestic animals are reared, and grazing is one of the most important industries.

16. Inhabitants.—In population, the United States ranks fifth among the Nations of the world, being surpassed only by the Chinese, British, and Russian Empires, and by France and her Colonies.

The population has increased more rapidly than that of any other country in the world. The principal cause of this increase is the arrival of European emigrants, who seek in America advantages denied to them at home. Besides the white population, there are numbers of negroes, Indians, and Chinese.

17. Political Divisions.—The United States consists of forty-four States, six Territories, and the District of Columbia.

For convenience of description these States and Territories are divided into six sections: *New England*, the *Middle Atlantic States*, the *Southern States*, the *East Central States*, the *West Central States*, and the *Pacific States and Territories*.

18. Government.—The United States is a Federal Republic. Each of the forty-four States has its own local government, but all are united under the Federal Government, whose seat is in the City of Washington.

19. Religion.—The government supports no particular form of religion. The greater part of the inhabitants are Protestants.

20. Education is general. Colleges and academies are numerous, and nearly every State has its system of free schools. The United States maintains a Military Academy (at West Point), a Naval School (at Annapolis), and a Bureau of Education.

21. History.—The first settlements on the Western Continent were made principally by the Spanish, the French, and the English.

The Spaniards occupied the sections bordering on the Gulf of Mexico and a large part of South America. Their settlements (except in United States territory) are still occupied by their descendants, who speak the Spanish language. The Portuguese settled Brazil, and their language is still the language of that country.

The French originally claimed and partly settled the Basin of the St. Lawrence and the Valley of the Mississippi. But the only part of this vast territory now in their possession consists of two small islands in the Gulf of St. Lawrence.

The English made settlements in the Atlantic Slope, between Maine and Florida. Conquest extended their possessions, and at one time they owned British America and all the country east of the Mississippi River.

22. In 1607 the first permanent English settlement in America was made, at Jamestown, in Virginia. Other colonies were settled from time to time, and in 1733 there were thirteen English colonies within the present limits of the United States.

They remained attached to England until her tyranny induced them to rebel. This led to the war of the Revolution. The first battle was fought at Lexington, in 1775. The surrender of Lord Cornwallis, in 1781, put an end to hostilities. On the 4th of July, 1776, the colonies declared themselves a separate nation. In 1783, the British Government acknowledged their independence. In 1788 a written Constitution was adopted, and in 1789 the first President was chosen and inaugurated.

23. At the close of the Revolutionary War, the area of the United States was about 800,000 square miles, and the population, 3,000,000. The area of the country (including Alaska) is now about 3,600,000 square miles, and the population, 63,000,000.

The progress of the country has been remarkable; and the great mass of the people are happier and more prosperous than those of any other country.

Questions.—What do the vegetable productions include? Name some of the principal staples, and tell where they are raised. What is said of the mineral resources? Of the animals? Of the population? What is the form of government? By whom were the early settlements made in the New World? What sections were settled by the Spaniards? By the French? The English?

QUESTIONS ON THE MAP.

DIVISIONS OF THE UNITED STATES.

New England States.

Maine.
New Hampshire.
Vermont.
Massachusetts.
Rhode Island.
Connecticut.

Middle Atlantic States.

New York.
Pennsylvania.
New Jersey.
Delaware.
Maryland.
Virginia.
West Virginia.

Dist. of Columbia.

Southern States.

North Carolina.
South Carolina.
Georgia.
Florida.
Alabama.
Louisiana.
Mississippi.
Tennessee.
Arkansas.
Texas.

East Central States.

Kentucky.
Ohio.
Indiana.
Illinois.
Michigan.
Wisconsin.

West Central States.

Missouri.
Iowa.
Minnesota.
Kansas.
Nebraska.
North Dakota.
South Dakota.

Pacific States.

California.
Oregon.
Nevada.
Colorado.
Washington.
Montana.
Idaho.
Wyoming.

Territories.

Utah.
Arizona.
New Mexico.
Indian.
Oklahoma.
Alaska.

Position and Area.

What country is situated upon the north of the United States? Upon the south-west? What ocean upon the east? On the west? What gulf on the south? What part of North America does the United States occupy?

Outline.

In what general direction does the Atlantic coast of the United States extend? The Pacific coast? Where is Penobscot Bay? Delaware Bay? Chesapeake Bay? Albemarle Sound? What Bay upon the Pacific coast? Which coast has the most inlets: the Atlantic or the Pacific?

Between what bodies of water is the Peninsula of Florida? Where is Cape Cod? Cape Hatteras? Cape Sable? Cape Flattery?

Surface.

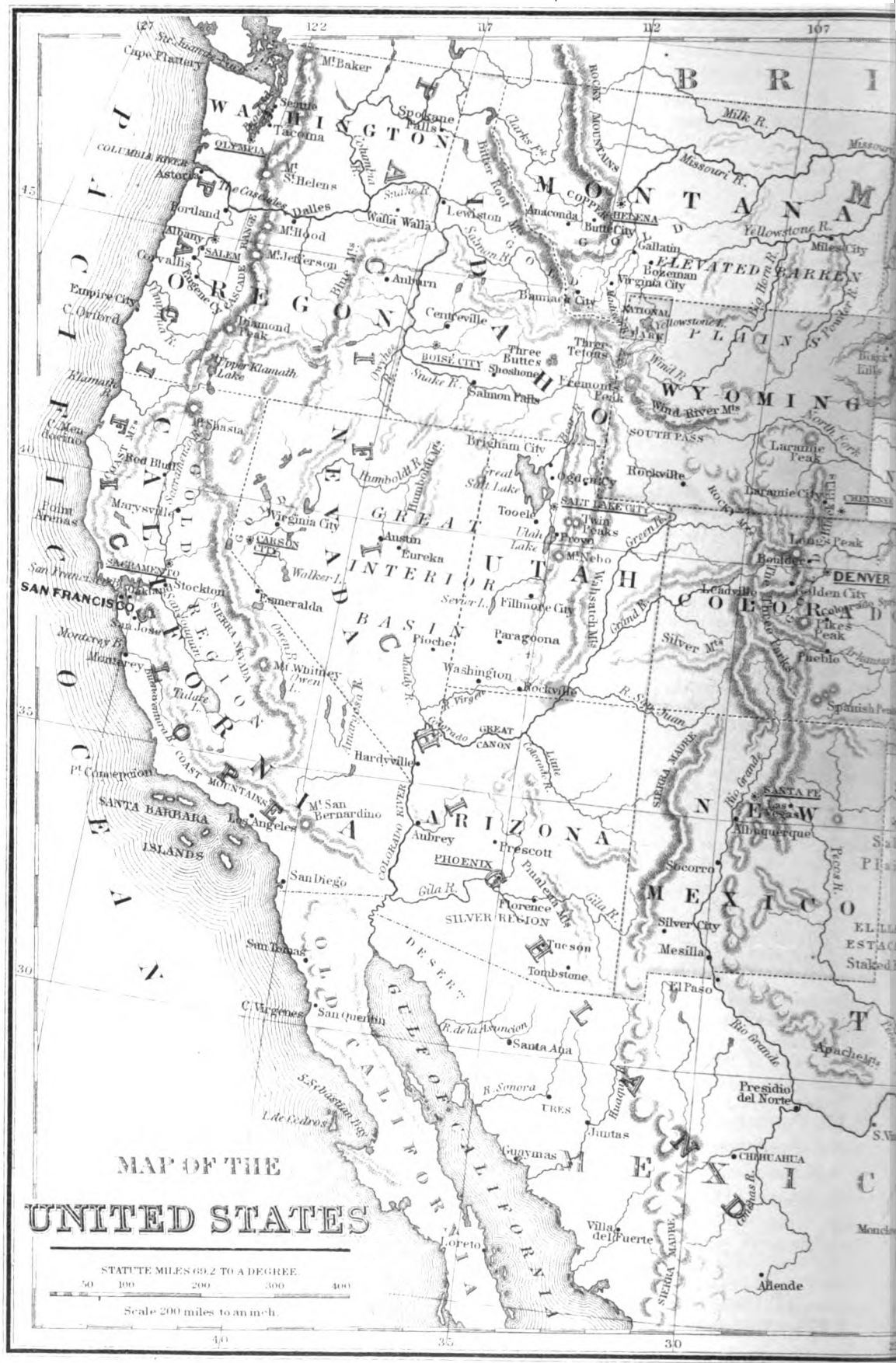
By what three mountain-systems is the United States crossed? Which of these commences near the shores of the Gulf of St. Lawrence?

What mountain-system skirts the Pacific coast? Which chain of this system is nearest the coast? What chain in California lies east of the Coast Mountains? In what direction does the Rocky Mountain-system extend? What part of this system is called the Sierra Madre? Where are the Wahsatch Mountains?

Into what four sections is the United States divided by these mountain-systems? What part of the Atlantic Slope is generally level? What mountain-system forms the eastern boundary of the Pacific Slope? Describe the country between the Rocky Mountains and the Sierra Nevada and Cascade Ranges. The country west of the Sierra Nevada.

Between what mountains is the Great Interior Basin situated?

Between what mountains does the Central Plain of the United States lie? What are the different divisions of this plain? What can you say about the size of the Mississippi Valley? What part of it is a barren tract? Describe the prairies. What part of the Central Plain is occupied by the St. Lawrence Basin and Valley of the Red River of the North? Where is the Gulf Plain?



Rivers and Lakes.

In what mountains do most of the rivers of the Atlantic Slope rise? Into what ocean and gulf do they flow? In what direction, and into what gulf, does the Mississippi flow? In what mountains do many of the tributaries of the Mississippi rise?

In what direction, and into what lake, does the Red River of the North flow? By what river are the Great Lakes drained? Into

what gulf, and in what direction, do the Great Lakes, beginning with the St. Lawrence, and into what gulf, does the Mississippi River flow?

What river of the United States flows into the Gulf of Mexico? In what mountains does the Colorado River rise? Into what body of water does it flow? What is the general direction of the



ction, does this river flow? Name the
the most westerly. In what direction,
rivers of Texas flow? In what State
e? Through what State does it flow?
ates flows into the Gulf of California?
is river rise? In what direction, and
s the Columbia River flow? What is
vers of the Pacific Slope?

Climate and Productions.

In what zone is the United States situated? Are the summers hot-
ter near the Gulf of Mexico, or near the Great Lakes? Name the
principal grains raised in the United States. Where is most wheat
produced? Corn? Rice? Cotton? Tobacco? Sugar? Potatoes?

Name in order, beginning with the most northerly, the thirteen States
bordering on the Atlantic Ocean. The five on the Gulf of Mexico. The

three States bordering on the Pacific. Name the eight States border-
ing on the Great Lakes. What State has the St. Lawrence River for
part of its boundary? Of what State is the Rio Grande the south-
western boundary? What Territory borders on British America?
What two border on Mexico? Name the States bordering
the eastern bank of the Mississippi River. The five on the west
bank. Between what parallels of latitude is the United States sit-
uated? Between what meridians? What is the capital?

NEW ENGLAND.

NEW ENGLAND occupies the north-eastern portion of the United States, and is composed of six States: — Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut.

2. Coast.—The coast is generally bold and rocky, but the New Hampshire and Cape Cod shores, and portions of the Rhode Island and Connecticut coasts, are low and sandy.

3. Surface.—The Green Mountains, by which the western part of New England is crossed, belong to the Appalachian System. The general appearance of the country is hilly and picturesque.

The White Mountains, in New Hampshire, are an offshoot from the Green Mountain chain. Mount Washington, the highest of the group, is one of the loftiest peaks in the Appalachian System.

Another branch of this system crosses Maine in a north-easterly direction. It consists of a ridge of high lands, of which Mount Katahdin and Mount Abraham are the principal elevations.

4. The Lakes and Rivers belong to two systems — the Atlantic, and St. Lawrence — which are separated by the Green Mountains.

The rivers of New England, like most of those which belong to the Atlantic Slope, flow through a hilly country, and afford great water-power for manufactures. The Penobscot, Kennebec, and Connecticut, are the only ones which are navigable to any considerable distance.

5. New England, and especially Maine, abounds with lakes of clear, bright water, which lie sheltered among the hills, giving life and beauty to the landscape.

The largest lake entirely within the limits of New England is Moosehead Lake, in Maine. It is navigable for steamboats. Lake Winnipiseogee, in New Hampshire, is the most picturesque and beautiful.

6. Productions. — Manufactures, commerce, the forests, and fisheries, form the principal sources of wealth in New England.

The agricultural products are not important, except for home consumption; they consist chiefly of Indian corn, wheat, rye, oats, and tobacco. The only mineral productions of much value are various kinds of building-stone.

The forests are most extensive in Maine, New Hampshire, and Vermont. The latter State is the only one which is not much engaged in manufactures.

The fisheries employ more men in New England than in any other section of the Union. Massachusetts and Maine are the only States which have an extensive foreign commerce, though the others, except Vermont, have a coast trade with our Atlantic sea-ports.

7. Inhabitants. — The New Englanders are mostly of English descent, and are noted for their enterprise and industry.

They are a moral and religious people; and, from the earliest settlement of the country, have given great attention to the subject of education. Many of them have emigrated to the Western States of the Union.

MAINE.

8. The coast of Maine is indented by numerous inlets, and is lined with islands. Maine has a greater number of good harbors than any other State in the Union.

9. Productions. — The forests cover the northern part of the State, and form one of the principal sources of its wealth: but the manufacture of cotton goods is now the leading industry.

Questions.—Which are the New England States? What is the character of the coast? Describe the surface. To what two systems do the lakes and rivers belong? Name the principal navigable rivers. Of what value are those not navigable? Which is the largest lake? What form the principal sources of wealth in New England? Which of these are most important? Of what descent are most of the inhabitants? For what are they noted? Describe them.

In winter, great numbers of men are engaged in cutting down the trees, which are then drawn over the hard and deep snow to the rivers. In the spring, the logs are floated down to the saw-mills, where they are converted into timber, boards, planks, shingles, and other kinds of lumber.



SHIP-BUILDING.

Maine is one of the leading States in ship-building and in the production of sawed lumber. The other chief exports are cotton and woolen goods, boots and shoes, leather, paper, granite, marble, lime, ice, potatoes, and fish.

10. Most of the Towns are in the southern part of the State; the north being but little settled. Augusta is the capital.

Portland, the largest city, has one of the best harbors in the Union. Bangor is the principal place for the shipment of lumber. Bath, and many other towns on the coast, are engaged in ship-building. Great quantities of lime are exported from Rockland.

Lewiston, Saco, and Biddeford (on the opposite side of the river from Saco), have extensive cotton factories. Waterville and Brunswick each contains a college.

NEW HAMPSHIRE.

11. New Hampshire is often called the Granite State, on account of the abundance of that mineral. From the magnificent scenery of the White Mountains, it is also styled the Switzerland of America.

12. Productions.

The manufactures of cotton and wool form the principal wealth of the State. Lumber, potatoes, cattle, wool, and dairy products are also important.

13. Towns.—

Concord is the capital. The largest manufacturing towns are Manchester, Nashua, Dover, Keene, and Great Falls.



RAILROAD UP MOUNT WASHINGTON.

Portsmouth, on the Piscataqua River, is the only sea-port, and has a good harbor. Opposite the city, on an island in the river, in Maine, is a United States Navy Yard. Hanover contains Dartmouth College.

Questions. — What advantage does Maine derive from the character of its coast? What form the principal sources of its wealth? In what other industries is Maine one of the leading States? Name some of the exports. In what part of the State are the towns? Name the capital. The other principal cities and towns. What is New Hampshire often called? Why? What are the principal productions? Name the capital. The other important towns. Which is the only sea-port?

VERMONT.

14. Vermont ("green mountain") derives its name from the mountains which traverse the State, and which are clothed with evergreen pines, firs, and hemlocks.

15. Productions.—The people are principally engaged in manufacturing, farming, and grazing. The valleys have a rich soil; and upon the mountain-sides are pastured great numbers of cattle, horses, and sheep. Live-stock, wool, and dairy products are largely exported.

The lumber-trade is valuable, and great quantities of maple-sugar are made. Vast beds of the most beautiful marble are found in various parts of the State.

16. Towns.—Montpelier is the capital. Rutland is the largest town. Burlington contains the University of Vermont.

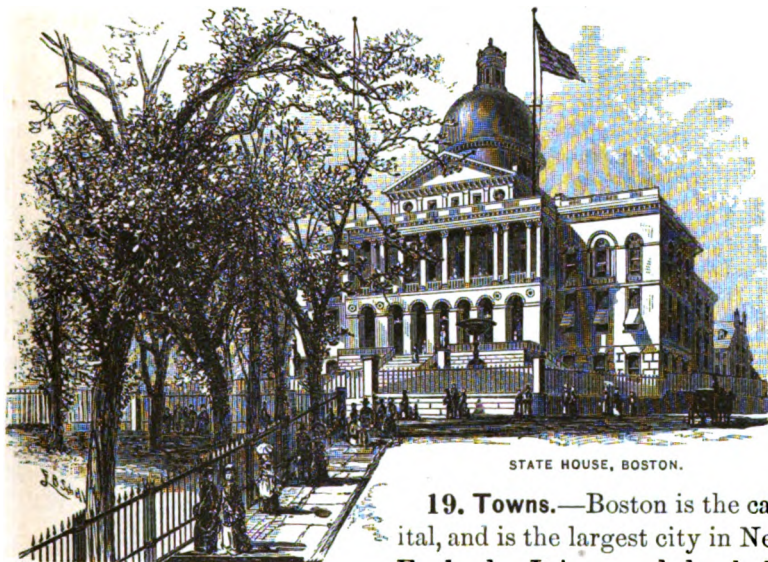
Rutland and Middlebury have an extensive trade in marble. Middlebury and Burlington each contains a college. Brattleboro is a noted summer resort. At Bennington, the Green Mountain Boys defeated a detachment of Hessians from Burgoyne's army, in 1777.

MASSACHUSETTS.

17. Massachusetts borders on Massachusetts Bay: whence it is often called the Bay State. It is one of the wealthiest and most populous of the United States.

18. Productions.—Massachusetts surpasses every other State in the manufacture of boots and shoes, cotton and woolen goods, and in the fisheries. These, with commerce, are the principal sources of her wealth.

The commerce of the State is second only to that of New York. The exports consist principally of manufactured goods, whale-oil, salt-fish, granite, and ice.



STATE HOUSE, BOSTON.

19. Towns.—Boston is the capital, and is the largest city in New England. It is exceeded only by New York city in the extent of its foreign commerce.

Salem is also a commercial town. New Bedford, once the most important whaling-port in the world, is largely engaged in manufacturing. Gloucester, Marblehead, Newburyport, and Barnstable are noted for extensive cod and mackerel fisheries.

Lowell, Lawrence, and Fall River are the principal seats of the cotton and woolen manufactures. Fall River has also extensive iron works. Lynn and Haverhill are well known for the manufacture of boots and shoes, and Taunton for its locomotives and other machinery.

Questions.—From what does Vermont derive its name? In what are most of the people engaged? Name the capital. The other principal towns. Why is Massachusetts often called the Bay State? In what does it surpass every other State? What is the commercial rank of Massachusetts? What is said of Boston?

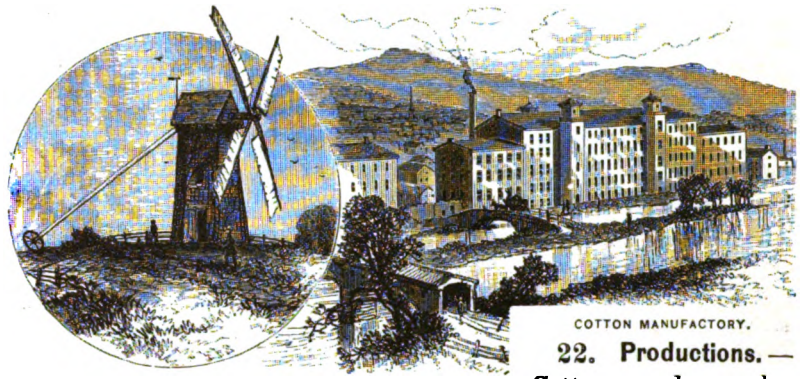
Quincy is well-known for its granite. Worcester is growing rapidly, and is a great railroad centre. It contains a State Lunatic Asylum, and numerous manufactories. Cambridge is the seat of Harvard University.

Springfield contains a United States Arsenal. Charlestown, which was annexed to Boston in 1874, contains Bunker Hill Monument and a United States Navy Yard.

20. Several of the towns in this State are celebrated in the early history of our country. Plymouth is the place where the Pilgrim Fathers landed in 1620; and the first battles of the Revolution were fought at Concord, Lexington, and Charlestown.

RHODE ISLAND.

21. Rhode Island is the smallest of the United States. In proportion to its size, it is the most populous State in the Union.



COTTON MANUFACTORY.

22. Productions.—

Cotton and woolen

manufactures and machinery are the most valuable productions.

The small streams are lined with manufacturing villages, which, however, are not so large as those on the Merrimac River.

23. Towns.—Rhode Island is the only State in the Union having two capitals. These are Providence and Newport. Pawtucket and Woonsocket are the only other cities.

Providence, the largest city in the State, and the second in size in New England, has considerable foreign commerce and coast-trade, and a great variety of manufactures. It contains Brown University.

Newport is one of the finest watering-places, and has one of the best harbors in the world. Pawtucket, like Providence, is noted for the variety of its manufactures. Bristol, Warren, Lincoln, Warwick, Cumberland, Westerly, and East Greenwich are thriving manufacturing towns.

CONNECTICUT.

24. Owing to the sobriety and industry of the inhabitants, this State is known as the "Land of Steady Habits." Its principal wealth is derived from manufactures.

Connecticut is noted for the great variety of her manufactures—such as cotton and woolen goods, farmers' and mechanics' tools, saddlery, coaches, paper, buttons, combs, clocks, and firearms.

25. Towns.—Hartford is the capital of the State. New Haven is the largest city.

New Haven, the "City of Elms," is a beautiful place, and the seat of Yale College. Hartford contains Trinity College, a Deaf and Dumb Asylum, and a Retreat for the Insane. Its manufactures are extensive, and large steamboats ascend the Connecticut River to this point.

New London and Stonington send a few vessels to the whale-fishery. Norwich is beautifully situated at the head of the Thames River. Middletown contains the Wesleyan University. Bridgeport, Waterbury, and Meriden are important places.

Questions.—Name the other most important places in Massachusetts. Which of them are celebrated in history? How does Rhode Island compare in size with the other States? What are the most important productions? Name the capitals. What are the principal productions of Connecticut? Name the capital. The other principal places.

QUESTIONS ON THE MAP AND TEXT OF THE NEW ENGLAND STATES.

Position.

What British Province lies north of New England? What Province east of Maine? What ocean washes the shores of these States? What State and Province are upon the western borders?

Area.

[NOTE.—For the answers to the following questions, refer to the Statistical Tables, page 133.] Which of the United States is nearly the same size as all of the Eastern States? Which is the smallest State in the Union? The next in size? Name the Eastern States in the order of their size, commencing with the largest. Which one is larger in extent than the other five? Which is the larger: Vermont or New Hampshire?

Outline.

What part of the coast of the Eastern States is rocky? What part is low and sandy? Which State has the most numerous bays and inlets? Which of these bays lies between Maine and New Brunswick? What large bay receives the waters of Penobscot River? Upon what bay is Portland situated?

What two bays are east of Massachusetts? What bay is south of the eastern part of Massachusetts? What islands south of the peninsula of Cape Cod? What cape on the north-eastern shore of Massachusetts?

What bay within Rhode Island? What island south of the State? What is the general character of the coast of Connecticut? What sound on the coast? What island is south of Connecticut? What Point at the eastern extremity of Long Island?

Surface.

What mountains cross the western part of the Eastern States? To what system do they belong? What part of the boundary of New Hampshire do they form? Of Maine?

Where are the White Mountains? Name the highest peak. Where is Mt. Katahdin? Mars Hill? Mt. Monadnock? Wachusett? Holyoke? Tom? Saddle Mountain? To what system do all these belong?

To what Slope does most of New England belong? What is the character of it: hilly, or level? Is the flat coast-district an important feature in New England, as it is in the rest of the Atlantic Slope? Why? [See description of the Atlantic Slope, in the chapter on the United States, page 30.]

Lakes and Rivers.

In what mountain-chain do most of the rivers of the New England States rise? To what system do most of the lakes and rivers belong? How are the Atlantic rivers separated from the St. Lawrence System?

To what system does Lake Champlain belong? By what river does it flow into the St. Lawrence? Name the four rivers in Vermont which flow into Lake Champlain. To what system do they belong?

To which system do all those lakes and rivers of the Eastern States belong which flow southward into the Atlantic Ocean? What river partly separates Maine from New Brunswick? Maine from Canada? Through what lake does the Penobscot first flow? Into what does the Aroostook River flow?

What river receives the waters of Grand Lake, and the Schoodic Lakes? Into what bay does the river flow? What lake does Kennebec River drain? In what State does the Androscoggin River rise? What mountains turn its course eastward?

In what mountains does the Saco River rise? What tributary does the Merrimac receive from Lake Winnipiseogee? Through what States does the Merrimac flow? What important manufacturing places are situated upon it?

What river flows into the head of Narragansett Bay? What three rivers flow into Long Island Sound? What lake forms the source of the Connecticut River? What States does that river separate, and through what States does it flow?

Let each scholar describe some river in the Eastern States: stating the system to which it belongs, what is its source, what lakes it receives, what States it separates or crosses, in what direction, and into what waters it flows

Climate and Productions.

[NOTE.—Refer to Climate and Vegetation, in the chapter on the United States.] Describe the climate of New England. How does it differ from that of the Southern States? In what part are the winters most severe: on the coast, or in the interior? In the three most northern, or the three most southern States?

Is the vegetation of New England of a temperate, or of a tropical character? What grains are raised there? Is tobacco extensively grown? Is cotton raised there? Rice? The sugar-cane? Wheat?

What form the principal sources of wealth in the Eastern States? Are the agricultural products raised in sufficient quantities for exportation? What minerals are found there? Which would be most likely to be engaged in the fisheries: Vermont or the States on the coast? Why? Which States have a foreign commerce, or coast-trade? Which are the principal manufacturing States? Where are the forests most extensive?

Which State is most engaged in the lumber-trade, and in ship-building? Which is most engaged in commerce? In the fisheries? What are the principal sources of wealth in Maine? New Hampshire? Vermont? Massachusetts? Rhode Island? Connecticut?

Towns.

On what river is the capital of Maine? On what bay is the largest city? On what river is the principal place for the shipment of lumber? Where is Bath? Rockland? In what are the people of these places engaged? Where is Lewiston? Saco? Biddeford? What important business is done in these towns? In what part of Maine are most of the towns situated?

What is the capital of New Hampshire? On what river is it situated? On what river is Portsmouth? Keene? Dover and Great Falls? What is the principal business of the two latter towns? What manufacturing towns in New Hampshire upon the Merrimac River? In what part of the State are the largest towns?

What is the capital of Vermont? On what river is it situated? What town near the mouth of that river? On what river are Rutland and Middlebury? What trade is carried on in the two latter towns? On what river are Brattleboro and Norwich? What can you tell about Bennington? Where is it situated?

What is the capital and largest city of Massachusetts? Where is it situated? Which is the principal city engaged in the whale-fishery? What cities are noted for cod and mackerel fisheries? For cotton and woollen manufactures? Where is Lynn? Taunton? What is the leading business in each of these places.

In what direction from Boston is Quincy? Salem? Cambridge? Springfield? Worcester? Plymouth? Concord? Lexington? For what are these places noted? Where is Newburyport? Pittsfield? Fitchburg? Northampton?

Name the capitals of Rhode Island. Which of them is at the head of Narragansett Bay? Which is a fashionable watering-place? Is it on an island, or on the mainland? Where is Bristol? Woonsocket? Pawtucket? Westerly?

Name the capital of Connecticut? On what river is Hartford? Where is New Haven situated? New London? Stonington? Norwich? Middletown? Bridgeport? Waterbury? Norwalk? Which of these places contain colleges? Which of them are on or near the coast?

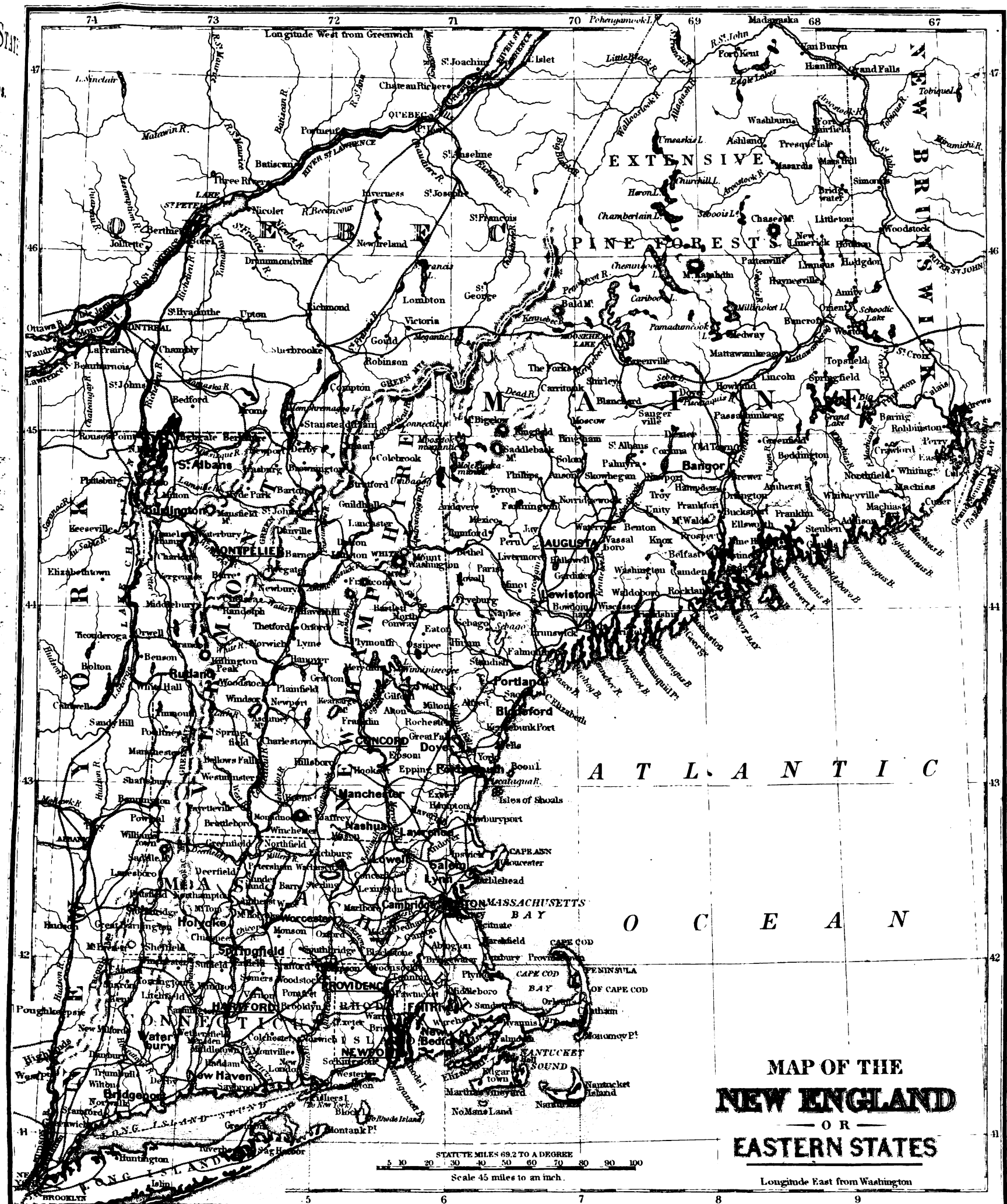
Miscellaneous.

What is the scale of the map of New England? Of what use is the scale of a map? What is the distance across the State of Vermont, from its northern to its southern boundary? What is the distance, in a direct line, from Portland to Boston?

On what waters would you sail, to go from Hartford to New York? From Providence to Boston? From Bangor to Portland? From Burlington to Plattsburg? If a boat were set adrift in the Connecticut River, in what direction, and into what water would it float? What two important rivers would you cross in going from Boston to Albany?

Bound each of the New England States. Name three important towns in each. Mention the principal rivers and mountains in each State. Spell the name of each State. Spell Passamaquoddy. Nantucket. Narragansett. Montauk. Katahdin. Monadnock. Wachusett. Richelieu. Missisquoi. Lamolille. Chesuncook. Schoodic. Kennebec. Androscoggin. Saco. Thames. Housatonic. Biddeford. Montpelier. Gloucester. Waterville. Winnipiseogee. Give the meaning of the last name

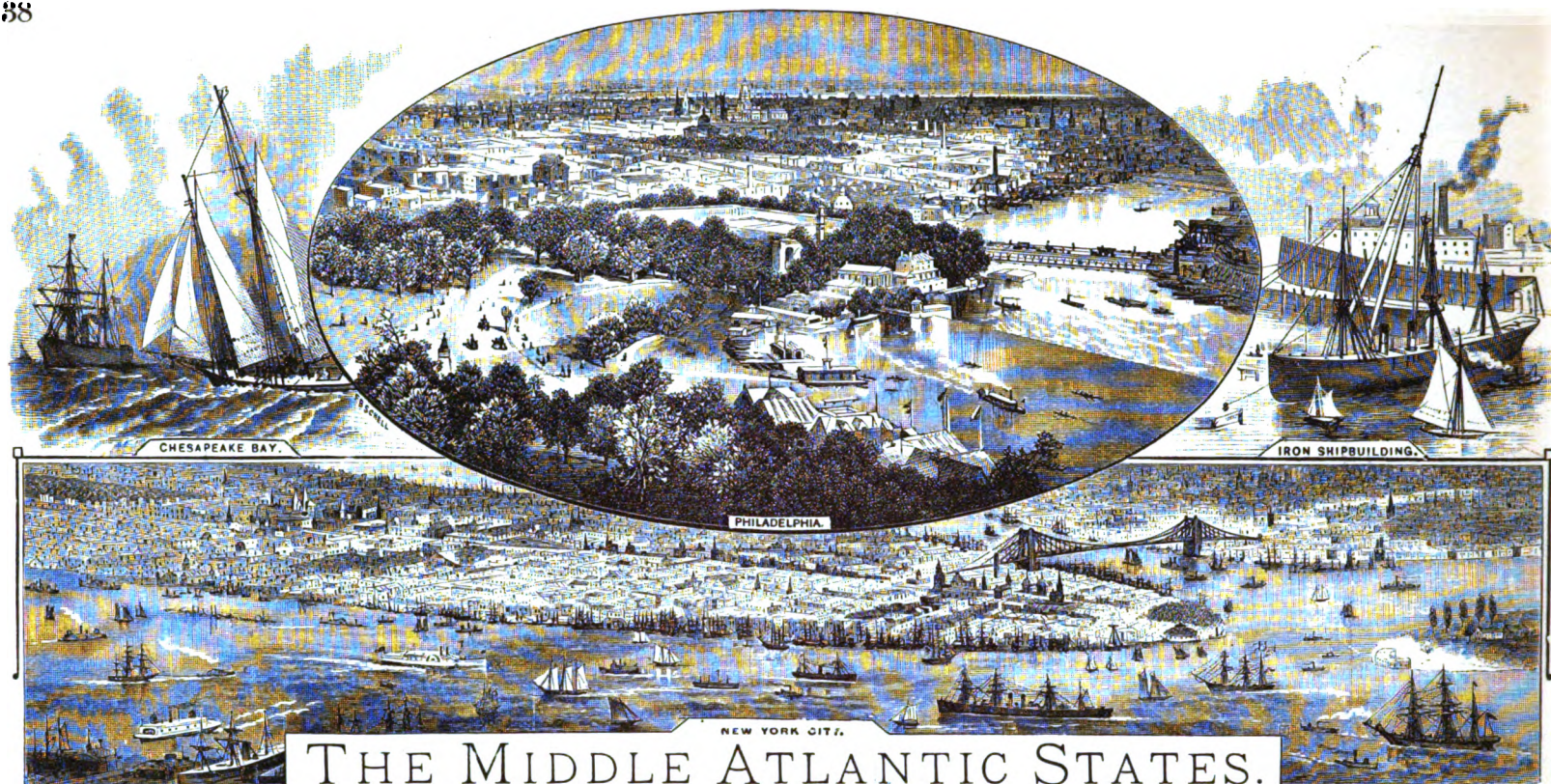
STATE
NO.



MAP OF THE
NEW ENGLAND
— OR —
EASTERN STATES

STATUTE MILES 69.2 TO A DEGREE
Scale 45 miles to an inch.

Longitude East from Washington



THIS section comprises the States of New York, Pennsylvania, New Jersey, Delaware, Maryland, Virginia, West Virginia, and the District of Columbia.

The first four were formerly called the Middle States, because when the Union was formed they were in the middle of the thirteen States of which it was composed. Now the true Middle or Central States are those which lie near the Mississippi River.

2. The agricultural, grazing, and mining products of this section are very important, and it possesses great advantages for manufactures and commerce.

More coal and iron are produced than in any other section. Manufacturing is promoted by the abundance of coal, and by the water-power of the rivers.

The commerce is immense. Numerous railroads and canals connect the Ohio River and the Great Lakes with the Atlantic coast, and bring hither the products of the Central States, which are exported through the great commercial cities of New York, Philadelphia, Baltimore, and Boston.

Commerce is also promoted by the Atlantic rivers, nearly all of which are navigable; and by Chesapeake and Delaware bays, which penetrate far into the interior.

3. Surface.—This region is crossed by the Appalachian Mountain System, which here attains its greatest breadth. The Catskill and Adirondack mountains are parts of the system.

4. West of the mountains the surface is hilly, with the exception of some level tracts in New York. The country between the mountains and the sea consists of two regions: a low and generally sandy tract upon the coast, and a hilly district in the interior.

The boundary between the hilly and level country would be marked by a line drawn from New York city, through Newark, Trenton, Baltimore, Washington, Fredericksburg, Richmond, and Petersburg, to Weldon, in North Carolina; for these places are near the rapids or falls at the head of tide-water.

5. Lakes and Rivers.—These belong to three different systems: the Atlantic, Mississippi, and St. Lawrence.

6. Owing to the hilly nature of the country, the rivers and lakes present many striking scenes of natural beauty.

Questions.—Which States were formerly called Middle States? Why? What are the chief resources of this section? How is commerce promoted? Describe the surface. To what systems do the lakes and rivers belong?

The Hudson, Delaware, and Potomac rivers force their way through narrow gorges in the eastern ridge of the Appalachian Mountains, which sometimes rise perpendicularly to the height of 1000 feet. The Highlands on the Hudson, the Delaware Water-Gap, and the passage of the Potomac at Harper's Ferry, are thus produced.

The Great Lakes pour their immense volume of water over a precipice 165 feet high, forming the unrivalled Cataract of Niagara. The Genesee River flows into Lake Ontario, over a series of magnificent falls: one of them, at Rochester, having a perpendicular descent of 97 feet. The Mohawk River and its tributaries have several beautiful cascades, of which Trenton Falls are the most celebrated.

NEW YORK.

7. In wealth, population, manufactures, and commercial importance, New York holds the first rank in the Union, and is therefore called the Empire State.

8. Productions.—The agricultural and grazing products, the minerals and manufactures, of New York, are all very important, but commerce is the leading interest.

Salt is the most valuable mineral. Iron and building-stone are abundant. Petroleum is also obtained in large quantities.

The manufactures of New York now exceed in value those of any other State. The principal articles are cotton and woolen goods, and iron. Great quantities of flour are made.

9. Towns.—Albany is the capital. No other State contains so many large towns and cities.

The city of New York is the largest on the Western Continent, and is next to London and Liverpool in commercial importance. Brooklyn is, next to New York, the largest city in the State.

The other important cities are situated on the lakes, or on the great routes of travel which centre towards the chief city. Immense quantities of produce from the Western States and Canada are received at Buffalo, Oswego, and Ogdensburg, and forwarded thence to the sea-coast. Troy, Utica, and Poughkeepsie are important places.

Rochester has extensive flour-mills, and Syracuse important salt-works. West Point is well-known as the seat of the United States Military Academy, and Saratoga as a fashionable watering-place.

Questions.—Mention some of the scenes of natural beauty found here. What rank does New York hold? What is the leading interest of this State? Name the principal cities and towns. Which of them is most important?

PENNSYLVANIA.

10. Pennsylvania, the "Keystone State," is one of the wealthiest and most populous States in the Union.

11. Productions.—Pennsylvania is principally a mining and manufacturing State; but it is also rich in grain and live stock. Large quantities of corn, oats, wheat and rye are raised.

New York and Pennsylvania are among the leading States in the production of hay, potatoes, butter and cheese. They are also the leading States in manufactures.

Pennsylvania produces more coal than any other State. The iron mines are also among the most productive in the country. The anthracite coal is found between the Delaware and Susquehanna rivers; the bituminous coal in the western part of the State. Petroleum, or coal oil, abounds in the northwestern part of the State.

Pennsylvania is the first State in the amount of iron manufactures. The other leading manufactures are cotton and woolen goods, flour and lumber.

12. Towns.—Harrisburg is the capital. Philadelphia, the principal city, is the greatest manufacturing city in the Union. It has an extensive commerce, and it is the greatest coal-market in the country.

Pittsburgh and Allegheny are also great manufacturing cities. They are surrounded by rich mines of coal and iron ore, and their mills and dwellings are supplied from numerous natural gas wells with the most economical fuel in the world.

Other important places are Scranton, Reading, Erie, Wilkes-Barre, Lancaster, Altoona, Williamsport, Allentown, Johnstown, York, Chester, and Norristown.

NEW JERSEY.

13. Productions.—New Jersey is an agricultural and manufacturing State. It supplies New York and Philadelphia with fruits and garden vegetables.

The potteries are the most noted in the United States, and the manufactures of cotton, wool, silk, leather, machinery, and India-rubber goods, are important. The principal manufacturing towns are in the northern part of the State.

14. Towns.—Trenton, the capital, is celebrated for the capture of the Hessians, by Washington, in 1776.

Jersey City, Newark, Paterson, New Brunswick, Trenton, and Camden are the principal manufacturing places. Princeton, the seat of Princeton College, was the scene of a victory gained by the Americans over the British during the Revolution.



SEA-BATHING.

Cape May, Long Branch, Asbury Park, Ocean Grove, and Atlantic City are well-known resorts for sea-bathing. Elizabeth and Hoboken are important places.

Questions.—Is Pennsylvania a commercial or a mining and manufacturing State? What kinds of grain are raised in this State? What is said of the mines of iron and coal? Where is the anthracite coal found? The bituminous? What are the leading manufactures? Which is the principal city? What advantages of position has Pittsburgh? What are the chief productions of New Jersey? Name the large towns. The principal summer resorts?

DELAWARE.

15. Delaware is, next to Rhode Island, the smallest State in the Union. This is the only State, the whole of which is included within the low district of the Atlantic Slope.

16. Productions.—Wheat, corn, oats, and fruit are the principal productions. Peach-raising is one of the principal industries.

17. Towns.—Dover is the capital. Wilmington is the largest city. Many steamboats and other vessels are built at Wilmington; and in the vicinity there are important flour, powder, and paper mills.

MARYLAND.

18. Maryland is divided by Chesapeake Bay into two sections; the portion east of the bay is called the Eastern Shore.

19. Productions.—Wheat, corn, and tobacco, are the chief productions. Iron and coal are abundant in the western districts. The manufactures of iron, cotton, and wool, are important.

20. Towns.—Annapolis is the capital, and contains a Naval School. Baltimore is a great commercial and manufacturing city. It is one of the largest markets in the world for tobacco, flour, and oysters.

Cumberland is noted for its coal-trade. Frederick and Hagerstown are flourishing places.

DISTRICT OF COLUMBIA.

21. The District of Columbia is the seat of the government of the United States.

It is situated on the north bank of the Potomac River, between Maryland and Virginia, and has an area of about sixty square miles. It contains the cities of Washington and Georgetown, the former of which is the capital of the United States.

The Constitution of the United States provides that Congress shall have power to exercise exclusive legislation, in all cases whatsoever, over the seat of the government.

VIRGINIA.

22. Virginia was settled in 1607, and being the earliest of the English Colonies, was styled the "Ancient Dominion."

23. Productions.—Tobacco, corn, oats, and wheat, are the most important productions. Iron and coal are the principal minerals.

24. Towns.—Richmond is the capital, and the principal commercial city. It has numerous flour-mills, and tobacco factories.

Norfolk has one of the best harbors on the Atlantic coast. Yorktown is famous for the surrender of the British army to General Washington in the year 1781. Mount Vernon was the residence of Washington. Petersburg, Lynchburg, Roanoke, and Alexandria are important places.

WEST VIRGINIA.

25. West Virginia comprises about a third part of the old State of Virginia.

26. Productions.—Coal, iron, and salt abound. Petroleum exists in large quantities in the region adjacent to the Ohio River.

27. Towns.—Charleston, the capital, is noted for its extensive salt works. Wheeling is the principal city.

Huntington, Parkersburg, and Martinsburg are smaller towns. Harper's Ferry, at the junction of the Potomac and Shenandoah rivers, is a well-known place.

Questions.—What is said of Delaware? Name the productions. The towns. By what Bay is Maryland divided? What are the principal productions? Name the important towns. What is said of the situation and government of the District of Columbia? What cities does it contain? Why is Virginia called the Ancient Dominion? What are the most important productions? Name the capital and largest towns. What does West Virginia comprise? Name the productions and towns.

40 QUESTIONS ON THE MAP AND TEXT OF THE MIDDLE ATLANTIC STATES.

Position.

What country lies north of this section? What three States and ocean upon the east? What State upon the south? What two States on the west?

Area.

Name the largest three of these States. The smallest three. Which is the largest State in this section? The smallest? How many States of the size of Massachusetts would Virginia make? How do New York and Pennsylvania compare in area?

Outline.

What ocean washes the shores of this section? What two bays indent the coast? What island is south of Long Island Sound? Where is Staten Island? What two capes at the entrance of Delaware Bay? Of Chesapeake Bay? What two States have no sea-coast? What States border upon the lakes?

Surface.

What mountain-system crosses this region? In what direction does it extend? What part of New Jersey does it cross? What part of New York? In what part of New York does it cross the Hudson River, and thence extend into New England?

Is the name of Alleghany Mountains applied to the whole system, or to a separate range? What is the most eastern range called? Name the chains in Pennsylvania, beginning at the east. In Virginia. Name the chains in New York.

Describe the surface of this section, west of the mountains. Between the mountains and the sea. Draw the boundary line between the hilly and the low country. Where is the Valley of Virginia?

Lakes and Rivers.

To what three systems do the lakes and rivers of this section belong? In what mountains do most of the rivers rise? Why do the rivers present so many picturesque scenes?

To what system does the Ohio, with its tributaries, belong? What gulf do its waters finally reach? What two rivers unite to form the Ohio? Describe the course of the Alleghany River. Of the Monongahela. Name the tributaries of the Ohio in West Virginia.

Into what gulf do the waters of the St. Lawrence and its tributaries flow? By what river does Lake Erie flow into Lake Ontario? Over what Falls? What can you tell about this cataract? In what direction does the Niagara River flow?

What three rivers flow into Lake Ontario? What is there interesting connected with the Genesee River? The Oswego River drains a chain of lakes: name the three principal ones. By what river does Lake Champlain flow into the St. Lawrence? Into what lake does Lake George flow? What river flows into Lake Champlain?

In what general direction do most of the rivers of the Atlantic System flow? Through what mountains do many of them pass? In what mountains does the Hudson River rise? In what direction does it flow? What tributary does it receive? What States does the Hudson separate, in the lower part of its course?

Where are the Raritan and Passaic rivers? By what river is Pennsylvania separated from New Jersey, and partially from New York? In what State does it rise? Into what bay does it flow? What tributaries does it receive in Pennsylvania?

What river flows into the head of Chesapeake Bay? In what State does its north branch rise? The west branch? What tributary does the Susquehanna receive?

Describe the Potomac River. In what direction do its two largest branches flow? On which side of the Blue Ridge do the York and Rappahannock rise? The James River? What two rivers of Virginia flow through North Carolina into Albemarle Sound?

Where are the Falls of Niagara? At what city is one of the Falls of the Genesee? On what river are Trenton Falls? Where are the Highlands of the Hudson? Where is the Delaware Water-Gap? Harper's Ferry? The Genesee and Alleghany rivers rise very near each other: if a log were thrown into the Genesee, into what gulf would it drift? If into the Alleghany River?

What rivers of this section does Lake Ontario receive? Delaware Bay? Chesapeake Bay? Let each scholar describe some river, in the manner proposed in the questions on the New England States—mentioning, also, whatever scene of natural beauty may be connected with it.

Climate and Productions.

Does New England, or this section, lie farther south? Which, then, has the warmer climate? Which has the warmer climate: New York, or Virginia? Why?

Where are the winters colder: on the mountains, or low-lands? In the interior, or near the coast? Which State is in the same latitude as New England? Which, then, has a climate most nearly resembling that of New England?

Are the farming and grazing products more, or less, important in this section, than in New England? These States lie in the northern and middle parts of our country, what, then, are the principal agricultural productions? [*Refer to Vegetation, in the chapter on the United States.*]

How do these States compare with other sections in the amount of coal and iron obtained? Between what rivers is the anthracite coal region of Pennsylvania? In what part of the State is the bituminous coal region? In what part of Maryland is the coal-field of that State?

What are the principal productions of New York? What is the leading interest? What are the principal productions of Pennsylvania? Of New Jersey? Delaware? Maryland? Virginia?

Which is the first commercial State in the Union? Why is New York called the Empire State? Which is the first State in the Union in its mines of coal? In the amount of iron manufactures? What State supplies New York and Philadelphia with garden vegetables? What minerals are found in West Virginia?

Towns.

What State contains the greatest number of large towns? Where is the capital of New York? The principal city? The next in size? Where are the other important cities of this State situated? What can you say of the city of New York? To what do Buffalo, Oswego, and Ogdensburg owe their prosperity? Where are they situated? Where is Rochester? Syracuse? West Point? Saratoga? For what are they noted? Where is Troy? Utica? Poughkeepsie?

Where is the capital of Pennsylvania? The principal city? Pittsburgh? Allegheny? Lancaster? Reading? Scranton? Erie? Allentown? What is said of Philadelphia?

Where is Trenton? Newark? Paterson? New Brunswick? Jersey City? Camden? Princeton? Cape Island? Atlantic City? Elizabeth? Hoboken? Which of these are noted for battles in the Revolutionary War? Which of them are manufacturing towns?

Where is Dover? Wilmington? Annapolis? Baltimore? Georgetown? Washington? Richmond? Norfolk? Petersburg? Alexandria? Yorktown? Mount Vernon? Wheeling? Charleston? What is said of each of these places?

Miscellaneous.

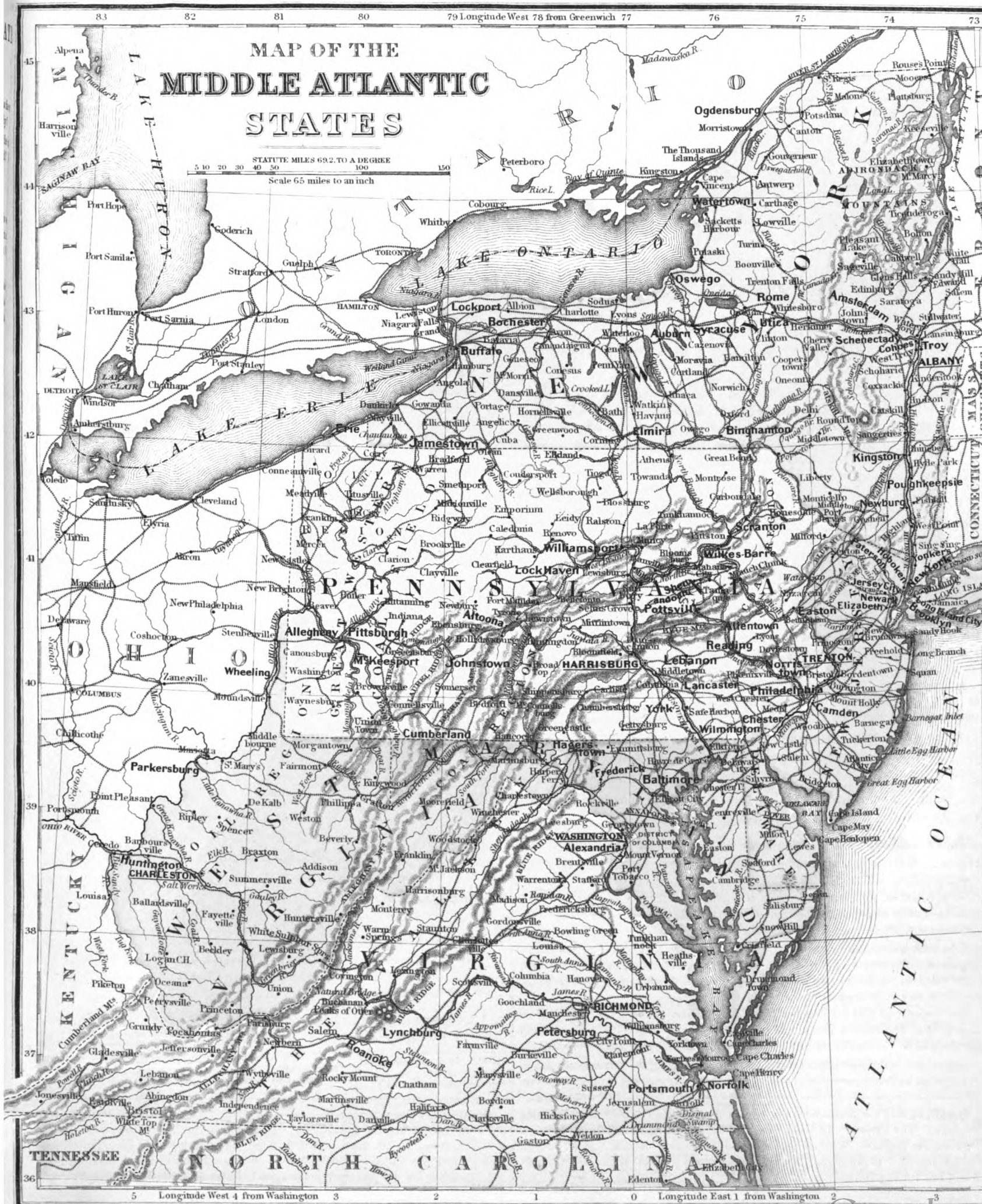
From what city would you ship a cargo of coal to Boston? Of tobacco? At what ports may a New England merchant purchase a cargo of grain? Of flour? Of iron manufactures? Why does he leave his own section to obtain these articles?

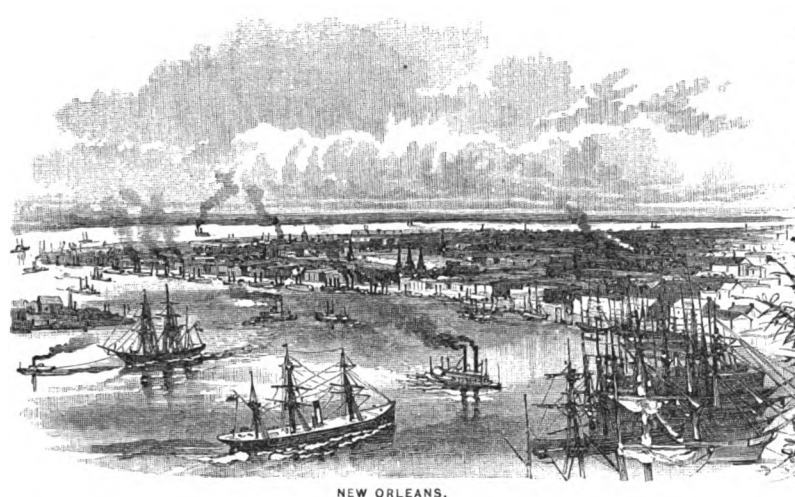
What is the scale of this map? What is the distance in a direct line of Richmond from Philadelphia? Of Wheeling from New York? Of Syracuse from Washington? To which of the three Atlantic cities of New York, Philadelphia, and Baltimore, is Buffalo nearest, measuring the distance in a direct line?

On which bank of the Delaware is Philadelphia: the right or left? Is Washington on the right or left bank of the Potomac? In going from Washington to Mt. Vernon, would you cross the river? On which bank, then, is Mt. Vernon?

On what waters would a vessel sail, to go from New York to Philadelphia? From Philadelphia to Richmond? From Baltimore to Washington? On what river would you sail, to go from Pittsburgh to Wheeling? What lake would you cross, in going from Oswego to Toronto?

Bound each State of this section? Name three important towns in each. Give the principal rivers and mountains in each State. Spell Philadelphia. Pennsylvania. Chesapeake. Catskill. Adirondack. Genesee. Annapolis. Monongahela. Alleghany (river and mountains). Allegheny (city). Seneca. Shenandoah. Oneida. Passaic. Susquehanna. Schuylkill.





THE SOUTHERN STATES.

THE section described in this chapter includes North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Tennessee, Arkansas, Texas, and the Indian Territory.

2. The Coast is low and, in general, sandy or marshy. It is lined with low, sandy islands, and contains few good harbors.

3. Surface.—A part of this section belongs to the Atlantic Slope; the remainder, to the Mississippi Valley.

The only hilly regions of any importance are in Tennessee and Alabama, near the southern extremity of the Appalachian Mountain System.

4. The Rivers belong to the Atlantic and the Gulf of Mexico Systems. They afford extensive navigation for steamboats.

The Valley of the Mississippi includes the most extensive system of navigated rivers in the world. The river rises in Lake Itasca, in Minnesota, and, after a course of 2800 miles, flows into the Gulf of Mexico by several mouths. It is navigable to the Falls of St. Anthony, a distance of 2200 miles.

In Louisiana and Mississippi, embankments, called *levees*, are built on both sides of the river, to prevent the waters from overflowing the land. Yet the river sometimes breaks through these defences, causing immense damage to the country.

5. Climate.—The summers are hot. The far South has a sub-tropical temperature, and therefore, as a rule, has no winter. In the northern and the mountainous parts of this section the winters are mild. The rain-fall is abundant where the moist winds from the Atlantic and the Gulf of Mexico prevail.

6. Productions and Occupations.—This is chiefly an agricultural region. Cotton is the great production and the principal export.

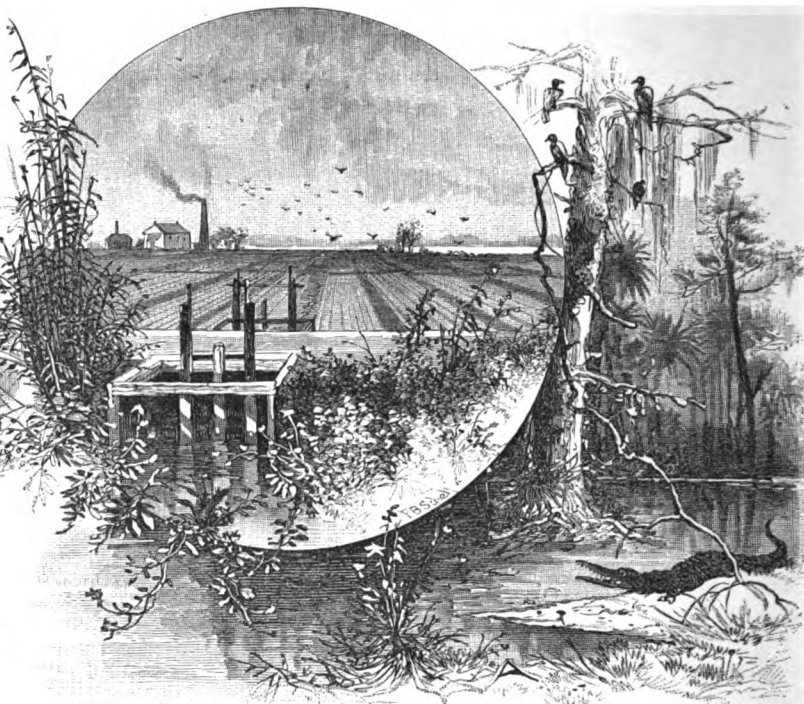
The climate and the soil are particularly favorable to the cultivation of cotton. Corn is raised in all the States. Rice is produced in the marshy districts of the coast, especially in South Carolina and Georgia. Oranges, lemons, and other tropical fruits are largely cultivated in Florida and Louisiana.

Tobacco is an important product in Tennessee and North Carolina; and sugar, in Louisiana. The forests of this section furnish pine, cedar, live-oak, cypress, and other valuable woods; and, in addition, naval stores, which consist of turpentine, rosin, tar, and pitch, made from the sap of the pine.

Rich deposits of gold are found in North Carolina and Georgia. Valuable mines of coal, iron, and other minerals, and extensive quarries of granite, limestone, and marble, add to the wealth of this section. Salt, sulphur, and gypsum abound.

Agriculture is the leading industry. Grazing, lumbering, and mining are next in importance, and some parts of this section are extensively engaged in manufacturing.

Questions.—What States form the section described in this chapter? Describe the coast. The surface. To what two systems do the lakes and rivers belong? Describe the climate. What is the principal production of this region? Name some of the other productions. What are naval stores? What minerals are found? Name the leading industry.



RICE-FIELD.

FLORIDA SWAMP.

7. The Commerce is extensive, and is carried on mainly through New Orleans, Mobile, Charleston, Savannah, and Wilmington.

8. The Inhabitants are chiefly of English descent, except in Louisiana, where there are many French, and in Texas, whose vast resources have drawn emigrants from various countries.

Negroes are numerous, and perform most of the labor.

NORTH CAROLINA.

9. Productions.—North Carolina derives great wealth from her pine forests, lumber and naval stores being the principal exports.

The amount of naval stores produced is more than double the yield of all the other States combined. Cotton, corn, tobacco, rice, and sweet potatoes are also important productions. The mountains are rich in mineral deposits.

10. Towns.—Raleigh is the capital. Wilmington is the principal city. Beaufort has the best harbor in the State. New Berne, Fayetteville, Charlotte, and Asheville are flourishing places.

SOUTH CAROLINA.

11. South Carolina is the smallest of the Southern States.

On account of the abundance of palmetto trees growing in this State, it is often called the Palmetto State.

12. Productions.—More rice is raised in South Carolina than in any other State, and the celebrated sea-island cotton is extensively grown on the islands along the coast.

These articles, with lumber, phosphates, and naval stores, are the principal exports. Corn and wheat, and early fruits and vegetables for the Northern markets, are raised in abundance.

13. Towns.—Columbia is the capital. Charleston, the largest city, is the most important seaport of the South Atlantic coast. More rice is exported from Charleston than from any other city in the Union. Beaufort and Port Royal have good harbors.

Questions.—Through what cities is most of the foreign commerce carried on? Of what descent are the inhabitants? By whom is the labor chiefly performed? What important articles are obtained from the pine forests? Name the capital of North Carolina. Other important places. What is South Carolina often called? Why? What are the principal productions? Name the capital. The largest city.

GEORGIA.

14. Georgia is more largely engaged in manufacturing than any other Southern State. The manufacturing towns are in the hilly section. Agriculture, lumbering, and quarrying are leading industries.

15. Productions.—Georgia produces abundantly cotton, corn, rice, and sweet potatoes. Her pine and live-oak timber are unrivaled.

The principal exports are cotton, rice, lumber, naval stores, iron, and marble.

16. Towns.—Atlanta is the capital. Savannah is the principal city. Augusta, Columbus, and Macon are next in importance.

FLORIDA.

17. Productions.—Cotton, rice, sugar, lumber and naval stores, grapes, and tropical fruits, are the principal productions. The forests are rich in pine, mahogany, cedar, and live-oak. The raising of early vegetables for the Northern markets is an important industry.

18. Towns.—Tallahassee is the capital. Key West is the largest town. Jacksonville has extensive manufactures and commerce.

Key West is situated upon a coral island. It is the most southern town in the United States, has an excellent harbor, and is extensively engaged in wrecking, sponge-fishing, and cigar-making. Pensacola contains a United States navy-yard. St. Augustine is the oldest town in the United States, except Santa Fe.

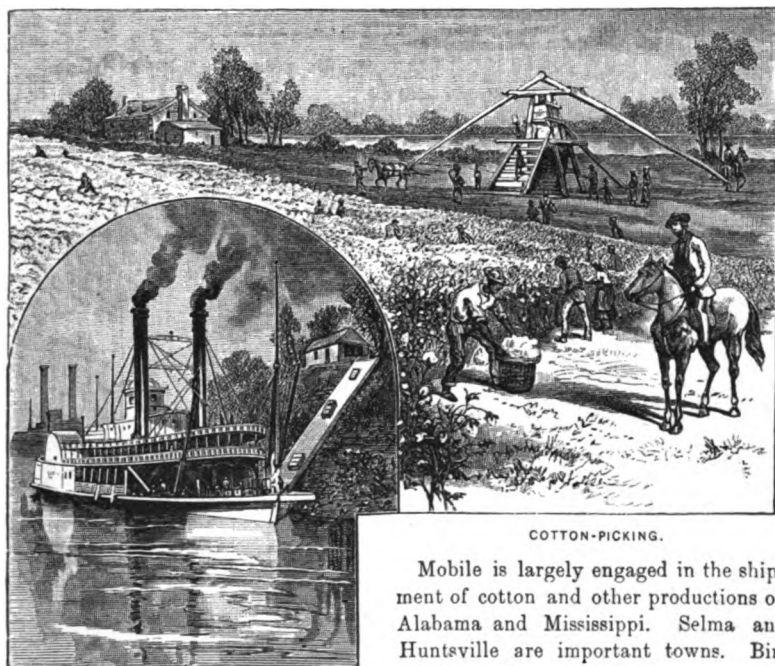
Florida is celebrated for its mild climate, and many of its towns, especially those on and near the St. John River, are favorite places of resort for invalids.

ALABAMA.

19. Productions.—Alabama is one of the leading cotton-growing States. Indian corn, sweet potatoes, rice, naval stores, and lumber are produced in abundance. Iron, coal, and limestone abound.

Alabama is largely engaged in manufacturing, lumbering, and mining.

20. Towns.—Montgomery is the capital; Mobile, the largest city, is one of the most important Gulf ports.



COTTON-PICKING.

Mobile is largely engaged in the shipment of cotton and other productions of Alabama and Mississippi. Selma and Huntsville are important towns. Birmingham has special advantages for manufacturing, owing to its supply of natural gas, which furnishes cheap fuel. Tuscaloosa contains the State University.

Questions.—What rank does Georgia hold among the Southern States in manufactures? Where are the manufacturing towns situated? Name the most important productions. The principal exports. The capital. What are the principal productions of Florida? Name the capital. Other important towns. What rank has Alabama as a cotton-growing State? Name the capital. The largest city.

LOUISIANA.

21. Louisiana was originally settled by the French, and was purchased of them by the United States in 1803.

Louisiana is more nearly level than any other State in the Union. There are no hills more than 250 feet high, and about one-fifth of the whole State is below the surface of the rivers at high water.

Productions.—The chief productions are sugar, rice, and cotton. Nearly all the sugar made from the sugar-cane in the United States is produced in Louisiana. Tropical fruits grow in great luxuriance. The pine, the cypress, and the live-oak furnish valuable timber, which is largely exported.

22. Towns.—Baton Rouge is the capital. New Orleans, the largest city in the South, is situated on the Mississippi, about one hundred miles from the mouth of that river.

New Orleans is the greatest cotton-mart in the world, and exports not only the productions of Louisiana, but of a considerable part of the Mississippi Valley. The city is built upon a bend in the river, and is therefore called the Crescent City.

MISSISSIPPI.

23. Productions.—Cotton, corn, rice, and sweet potatoes are the principal productions. Mississippi is one of the leading States in the production of cotton. Cotton-seed oil, lumber, and naval stores are among the exports.

Mississippi has no seaport, and the productions of this State are therefore chiefly forwarded for export to New Orleans and Mobile.

24. Towns.—Jackson is the capital. The other principal towns are Vicksburg, Meridian, Natchez, Greenville, and Columbus.

ARKANSAS.

25. Productions.—The productions are tobacco, cotton, rice, hemp, grain, and live-stock. Oak, black walnut, poplar, and other varieties of valuable timber are largely exported.

Limestone, oil-stone, zinc, coal, iron, and other minerals are found, but the mines are not extensively worked, and agriculture is, as yet, the chief industry.

26. Towns.—Little Rock is the capital, and the largest town in the State. Helena, on the Mississippi, is an important cotton-mart. Fort Smith is the centre of trade with Indian Territory.

The *Hot Springs* of Arkansas are a great natural curiosity. They are about eighty in number, fifty miles south-west of Little Rock, and are much resorted to by invalids. Eureka Springs, famous for its mineral waters, is the second town in the State.

TENNESSEE.

27. The Cumberland Mountains and the Tennessee River divide the State into East, Middle, and West Tennessee.

28. Productions.—Corn, wheat, cotton, hemp, tobacco, and live-stock are the leading productions. The iron mines are of great value. The marbles of Tennessee are famous for their beauty.

Agriculture is the chief industry; but stock-raising, manufacturing, the mining of iron and coal, and the quarrying of marble and various building-stones are extensively carried on. The forests furnish very valuable timber.

29. Towns.—Nashville, the largest city of Tennessee, is the capital. Memphis, on the Mississippi River, is one of the greatest cotton-marts in the country. Chattanooga is the third town in the State. Knoxville and Jackson are next in importance.

Questions.—By whom was Louisiana settled? What are the most important productions? Name the capital. Why is New Orleans called the Crescent City? What are the productions of Mississippi? Through what cities are they chiefly exported? Name the capital. The other important places. What are the productions of Arkansas? Name the capital. What natural curiosity in this State? Name the three divisions of Tennessee. The chief productions. The capital, and other towns.

TEXAS.

29. Texas, the largest State in the Union, consists of three divisions:—1. A lowland district on the coast, from 30 to 60 miles wide; 2. High, rolling prairies, extending towards the Red River for 200 miles; 3. A table-land in the north-west.

This last division contains the desert which the Mexicans named the "Llano estacado," or *staked plain*, because they drove stakes into it to mark their route across it.

30. Productions.—The prairies have a rich soil, and the river bottoms are of inexhaustible fertility. Rice, the sugar-cane, oranges, lemons, and other tropical fruits, are raised upon the coast; cotton, tobacco, corn, sheep, horses, and cattle, upon the prairies.

Texas raises more cattle and more cotton than any other State.

QUESTIONS ON THE MAP AND TEXT OF THE SOUTHERN STATES.

Position.

What three States are on the north of this section? What ocean is on the east? What gulf on the south? What country and what territory are on the west? Name the States on the Atlantic Ocean. On the Gulf of Mexico. On the Mississippi River.

Outline.

Describe the general character of the coast. Why are good harbors not numerous? What peninsula is between the Atlantic Ocean and the Gulf of Mexico? What is its most southern cape?

What islands are south and south-west of the peninsula of Florida? South-east of that peninsula? What three capes are on the coast of North Carolina? Where is Cape Canaveral? Cape St. Bias?

What two sounds are on the coast of North Carolina? Where is Tampa Bay? Apalachee Bay? Mobile Bay? Where are Lake Borgne and Lake Pontchartrain?

Surface.

To what section do these States belong? What is the boundary-line between the hilly and the level country of the Atlantic Slope? Where is Okefenokee Swamp? Where are the Everglades? Are these swamps in the lowland or in the highland districts?

What parts of North Carolina, South Carolina, and Georgia, are mountainous? What parts of Tennessee and Alabama? To what system do these mountains belong? What is the general character of the surface of the Mississippi Valley?

Rivers and Lakes.

Name, in order, the rivers of North Carolina. Of South Carolina. What river flows between South Carolina and Georgia? Between Georgia and Florida? What rivers flow into the Atlantic, between the Savannah and the St. Mary? What two rivers unite to form the Altamaha? In what State is the St. John? In what direction does it flow? To what System do all the foregoing rivers belong?

Wool, sweet potatoes, and butter exceed in value all the other productions. The mineral resources are untouched, though they include rich deposits of copper, silver, coal, iron, and salt.

The river valleys are heavily timbered, especially in Eastern Texas, where the forests of yellow pine are of immense extent; and on the prairies are what are called "islands" of timber. Live oaks are abundant upon the coast.

31. Vast herds of mustangs and cattle range over the plains. In the forests are found the black bear, the puma, and the peccary; and alligators infest the waters of the coast.

32. The climate is generally mild and healthful; but the cold Northerners, which blow in winter, are very severe. Terrific hurricanes sometimes blow upon the coast, causing wide-spread destruction.

Where is the Suwanee River? The Apalachicola? What two rivers unite to form the Apalachicola? Which of these constitutes a part of the boundary between Georgia and Alabama?

Into what bay does the Mobile River flow? What two rivers unite to form the Mobile? Which of them rises in Mississippi? What rivers unite to form the other? Of what river is the Black Warrior a tributary? The Cahawba?

What two rivers of Mississippi flow into the Gulf of Mexico? What two unite to form the Tennessee? Describe the Tennessee. The Cumberland. Into what do these two rivers flow?

Name two tributaries of the Mississippi River in Mississippi. Three in Arkansas. One tributary in Louisiana. Into what does the Washita flow? What river flows between Louisiana and Texas? Where is Lake Okechobee? Lake George? Catlaoula Lake?

Name the principal rivers of Texas. In what direction do they flow? Into what water? Where does the Rio Grande rise? (See *Map of U. S.*) To what System do all the waters flowing into the Gulf of Mexico belong?

Productions.

Are the most important productions of these States agricultural, manufacturing, or mineral? Name the great staple. What grain is abundant? Where is rice produced? Tobacco? Sugar? Where are the pine forests? What articles are obtained from the pine-trees?

Which State produces the greatest amount of cotton? Of rice? Sugar? What kind of timber, for ship-building, is obtained in Florida? What can you say of the mineral wealth of this section? Where is gold found? From what cities are the products of these States chiefly exported?

33. Towns.—Austin is the capital, and Dallas the largest city. Galveston is the chief seaport, and exports cotton, lumber, hides, cattle, and wool.

San Antonio, Houston, and Fort Worth are next in importance. El Paso is a center of trade between Mexico and the United States. These places are leading railroad centers, and are growing rapidly.

INDIAN TERRITORY and OKLAHOMA TERRITORY.

34. The Indian Territory was reserved by our Government for various Indian tribes, some of whom were removed from the States east of the Mississippi.

About one-half of these Indians are nomadic. The other half are civilized. A Territory called Oklahoma, formed from land ceded by the Indians, was organized in 1890. Guthrie is the capital.

35. Towns.—Tahlequah is the capital of the Cherokee nation. The Chickasaws, Choctaws, Creeks, Seminoles, etc., have each a capital.

Towns.

Describe the situation of the following towns:—

North Carolina.—Raleigh, Wilmington, Beaufort, New Bern, Fayetteville, Charlotte, Asheville.

South Carolina.—Columbia, Charleston, Beaufort.

Georgia.—Atlanta, Savannah, Augusta, Columbus, Macon.

Florida.—Tallahassee, Jacksonville, Key West, Pensacola, St. Augustine.

Alabama.—Montgomery, Mobile, Selma, Huntsville, Birmingham, Mississippi.—Jackson, Vicksburg, Meridian, Natchez, Greenville.

Louisiana.—New Orleans, Baton Rouge, Shreveport.

Texas.—Galveston, Dallas, Houston, San Antonio, Austin, El Paso.

Indian Territory.—(See *Map of U. S.*) Tahlequah.

Oklahoma Territory.—(See *Map of U. S.*) Guthrie.

Arkansas.—Little Rock, Fort Smith, Hot Springs, Eureka Springs.

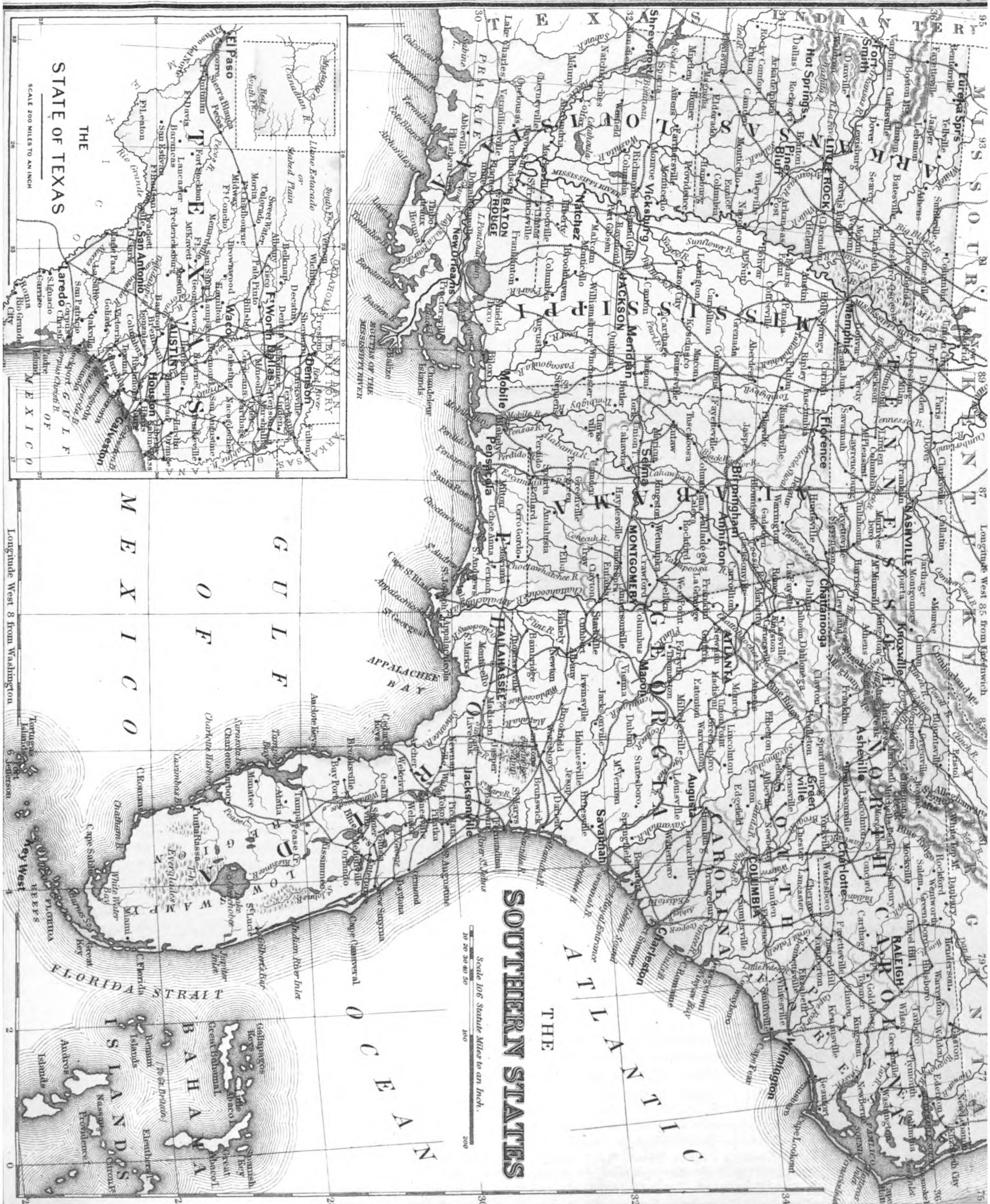
Tennessee.—Nashville, Memphis, Knoxville, Chattanooga, Jackson.

Miscellaneous.

The following are the most important cities of this section; locate them, and tell what you know about them: New Orleans, Charleston, Mobile, Savannah, Nashville, Memphis, Galveston. Let each scholar locate some town and tell what he can about it.

By what river does New Orleans receive the productions of the Mississippi Valley? With what would you freight a vessel at New Orleans for Liverpool? Ship a cargo from Charleston to Boston: what articles would you send?

At what ports of this section would you load a vessel with lumber and naval stores? With rice? Sugar? Cotton? What rivers would you ascend, to go from New Orleans to Little Rock? On what rivers would you sail, going from Aberdeen to Mobile?

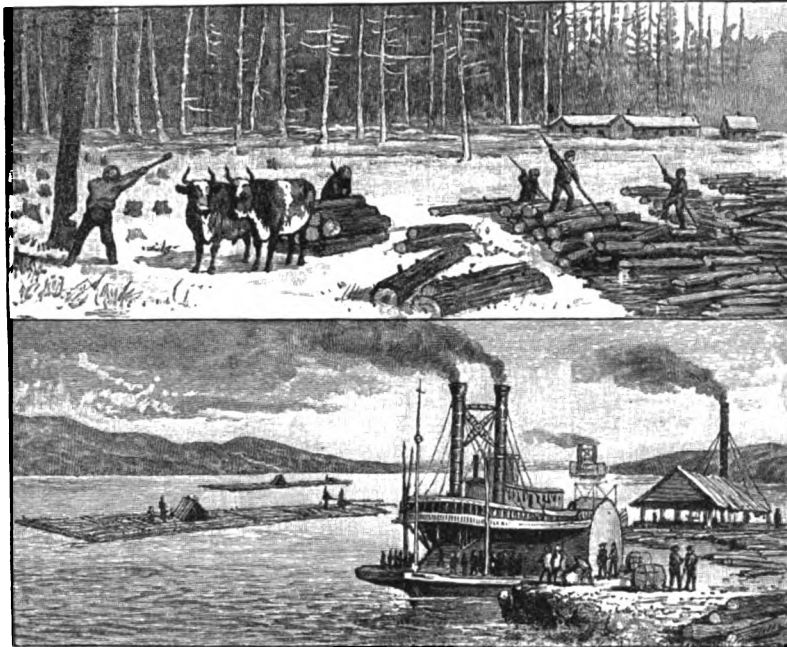


STATE OF TEXAS

SCALE 200 MILES TO AN INCH

SOUTHERN STATES

Scale 106 Statute Miles to an Inch.



LUMBERING.

EAST-CENTRAL STATES.

THE section described in this chapter comprises Kentucky, Ohio, Indiana, Illinois, Michigan, and Wisconsin.

2. Surface.—This section lies wholly in the Great Central Plain of the United States, and has, in general, a level or undulating surface, with a gradual ascent from the Mississippi River. The only mountains are the Cumberland Mountains, in Kentucky.

Many of the streams have worn deep channels in the land, so that the high steep banks (called *bluffs*) have the appearance of hills, when seen from the river.

3. Among the striking features of this region are the prairies, or treeless plains, in Illinois, Michigan, and Wisconsin.

The soil of the prairies is of remarkable fertility, and yields a luxuriant growth of grass and grain. The banks of the streams are well wooded, and trees grow well wherever a sufficient extent of territory to prevent the ravages of prairie-fires is placed under cultivation. Some of the prairies are level, others have an undulating surface.

4. The Lakes and the Rivers belong to the basins of the Mississippi and the St. Lawrence, the most important and extensive water-courses in the country.

The facilities which they afford for manufactures and commerce are unsurpassed. Lake Superior is the largest fresh-water lake in the world.

5. The Climate, though pleasant and generally healthful, is marked by extremes—the summers being hot, and the winters, in all the States except Kentucky, exceedingly cold.

6. The Soil is fertile, especially on the prairies.

7. Productions and Occupations.—Agriculture and grazing are the chief sources of wealth. Mining, however, is very important, and manufactures are growing rapidly. Illinois and Ohio are among the leading manufacturing States of the Union.

Questions.—Describe the surface. Toward what river does the land slope? Where are the mountains? What are the bluffs? What has caused them? In what States are the prairies? Is Kentucky a prairie State? Ohio? Describe the prairies. To what river-systems do the lakes and the rivers belong? Of what use are they? Describe the climate. Where are the winters mildest? Most severe? Why? Where is the richest soil? What are the leading industries?



CINCINNATI.

The *Commerce* is immense. Besides the natural advantages afforded by lake and river, there are numerous canals. Trade is carried on chiefly by means of the Great Lakes, and by the railways which cross the country in every direction. Most of the commerce is domestic, but the foreign trade is increasing.

The main *Agricultural Products* are corn, wheat, and oats, hay and potatoes, flax, hemp, and tobacco. The *Grazing Products* are live-stock, beef and pork, wool, and the products of the dairy. The *Fisheries* along the Great Lakes give employment to numbers of people.

Forests.—Most of the States are well wooded; but the principal timber region is in Michigan and Wisconsin.

The *Minerals* are coal, iron, copper, lead, zinc, salt, and building-stone. The richest iron and copper mines are in the northern peninsula of Michigan. The lead and zinc come chiefly from Illinois, Wisconsin, and Iowa.

The principal *Manufactures* are flour-mill products, liquors, lumber, farming implements, carriages and wagons, furniture, leather, ropes, bagging, and clothing.

KENTUCKY.

8. Surface.—In the south-east are the Cumberland Mountains, with their foot-hills; north and west of them, occupying more than half the area of the State, lies an undulating upland, in which is the fertile "Blue Grass" country, famous for its horses and cattle. West of this section the land is low and level.

The most remarkable natural curiosity is the Mammoth Cave, the largest in the world. In this State are found swamps known as "licks," so called because animals resort to them to lick up the salt incrustations.

The rivers of Kentucky afford a more extensive water communication than those of any other interior State.

9. Productions and Occupations.—There are extensive forests of oak, walnut, maple, and other deciduous trees, in various parts of the commonwealth. Kentucky ranks high as a grain and grazing State, and is first in the production of hemp, flax, and tobacco.

Coal, iron, salt, and building-stone abound. Agriculture and stock-raising are the chief industries. Large numbers of the people are engaged in mining, manufacturing, and commerce.

10. Towns.—Louisville is the largest city in the State, and ranks next to Cincinnati among the towns of the Ohio valley. It has a large commerce and extensive manufactures, and is the greatest tobacco market in the world. The rapids in the Ohio at this place are avoided by a canal.

Frankfort is the capital; Lexington is the largest inland town. Covington, Newport, Paducah, Maysville, and Henderson are important towns on the Ohio River. Covington and Newport are opposite Cincinnati.

Questions.—Name the principal agricultural products. The grazing products. What is said of the forests? Name the principal minerals. Where is the coal found? The iron? Lead? Copper? Name the leading manufactures. Which two States are most engaged in manufacturing? How is the commerce carried on? Describe the surface of Kentucky. The Mammoth Cave. The licks. Name the productions. Describe Louisville. Frankfort. Lexington. Covington and Newport.

OHIO.

11. Surface.—Ohio is a low plateau, sloping from the centre of the State toward Lake Erie and the Ohio River.

12. Productions and Occupations.—Ohio is one of the leading States of the Union in agriculture, grazing, mining, manufacturing, and in domestic commerce. Forests of oak, chestnut, and maple furnish valuable lumber. Coal and iron are found in abundance.

Grain, hay, flax, tobacco, and fruit are the chief agricultural staples. Grapes are cultivated with success, and Ohio is next to California in the production of wine.

The valuable coal-mines and the many swift streams give Ohio great advantages for manufacturing. The leading articles are flour-mill products, iron products, packed meats, agricultural implements, liquors, clothing, lumber, furniture, machinery, saddlery, carriages, and wagons.

The Great Lakes and the navigable rivers, and the numerous railroads, connecting Ohio with all parts of the country, make the State rank among the first in commercial importance.

13. Towns.—Cincinnati is the chief city in the Ohio valley. The main part of the town lies on a broad terrace surrounded by an amphitheatre of hills; and no large city of our country commands more varied and beautiful scenery.

Its central situation, extensive connections by railway and steamboat, and ready supply of iron and coal, give the place great advantages for commerce and manufactures. Pork-packing is one of the leading industries.

14. Cleveland is the second city in the State in size and importance. It commands a fine view of Lake Erie, and from the abundance of its shade trees is called the Forest City.

The commerce and the manufactures of iron and coal oil are very important. Cleveland is famous for her petroleum-refineries.

Next in importance are Columbus, Toledo, Dayton, Youngstown, and Springfield.

Columbus, the capital, is remarkable for the number and architectural beauty of its public buildings and institutions of learning and benevolence.

INDIANA.

15. Surface.—River hills extend along the Ohio and other streams. Back of these a table-land spreads out and forms the interior, presenting a most diversified landscape—groves of black walnut, oak, maple, and ash, interspersed with vast level prairies. The greater part of the State is undulating or level.

16. Productions and Occupations.—Grain, flour-mill products, and grazing products are the staples. Coal is the principal mineral. Iron, limestone, and kaolin are found in abundance. Agriculture, grazing, mining, and manufacturing are the leading industries.

Among the principal manufactures are lumber, iron and wooden ware, woolen goods, machinery, furniture, farming implements, wagons, and carriages.

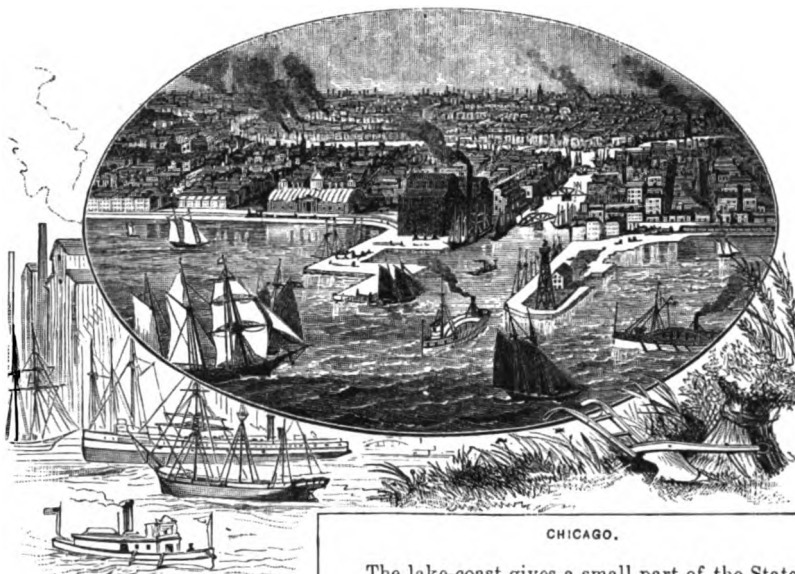
17. Towns.—Indianapolis, the capital and principal city, is the chief centre of trade in the State. It is growing very rapidly, and is one of the largest cities of the Central States.

Evansville, the second city, has extensive manufactures and a large trade. Next in importance are Fort Wayne, Terre Haute, New Albany, Lafayette, Madison, and South Bend. Michigan City, the only lake-port, has an excellent harbor.

Questions.—Describe the surface of Ohio. Name the leading industries. The vegetable productions. The grazing products. The chief mineral. What is said of manufacturing? How is commerce carried on? Name the chief town in the Ohio valley. Describe its situation. Its advantages for commerce and manufactures. Name its manufactures. Rank in pork-packing. Describe Cleveland. Name the other important towns of Ohio. Describe the surface of Indiana.

ILLINOIS.

18. Surface.—Illinois occupies an inclined plane, which slopes from Lake Michigan to the Mississippi River. The greater part of the State consists of level or gently undulating prairies.



CHICAGO.

The lake-coast gives a small part of the State to the St. Lawrence Basin; the rest of Illinois is in the Basin of the Mississippi, many of its streams reaching that river directly, others by means of the Wabash and the Ohio.

19. Productions and Occupations.—Agriculture and grazing, mining, manufacturing, and commerce, are the leading industries. Illinois is chiefly a prairie State, but the southern and the central districts are well supplied with timber.

The soil is of unsurpassed fertility. The prairie lands produce, in the greatest abundance and with comparatively little labor, corn, wheat, oats, and hay. The lighter soil in the timber lands is well adapted to the growth of wheat and other small grains. The deep, rich loam of the river lands produces, without fertilizing, luxuriant vegetation of great variety. Its crops of corn cannot be surpassed.

This State holds the first rank as a grain-growing State, and produces in abundance garden vegetables and fruits, flax, wool, and live-stock. Coal underlies two-thirds of the surface. The lead mines are in the north-west.

Illinois has remarkable facilities for trade, by lake, river, canal, and railroad. It has more miles of railway than any other State of the Union.

20. Towns.—Chicago, the largest inland city in the Union, is the great commercial centre of the North-west, and one of the leading manufacturing and commercial cities of the United States. It is the greatest grain and lumber market in the world, and its trade in lumber, live-stock, packed beef and pork exceeds that of every other town in the country.

Chicago is a great railroad centre, and, besides its immense domestic commerce, has a large trade with Canada. It has also a large trade direct with Europe by way of the Great Lakes, the Welland Canal, and the St. Lawrence River.

Next in size and importance are Peoria and Quincy, large and prosperous cities with extensive commerce and manufactures. Peoria is on Peoria Lake, which is merely a widening of the Illinois River. Quincy stands on a high limestone bluff by the Mississippi River. Galena, in the lead region, is the emporium for lead. The Illinois University is located at Champaign.

Springfield, the capital, is on a beautiful prairie. It was the home of Abraham Lincoln, and contains a monument erected to his memory. The State-house at Springfield is massive and beautiful.

Questions.—Name the leading products and manufactures of Indiana. The chief centre of trade. The second city. The next in importance. The lake-port. Describe the surface of Illinois. Name the leading industries. The agricultural and grazing products. The minerals. The advantages for commerce. The rank in manufactures. Describe Chicago. Its commerce. How is the city drained? Describe Springfield. Other chief towns.

MICHIGAN.

21. Michigan is almost wholly surrounded by water, and comprises two peninsulas. The **Northern** peninsula is rugged and mountainous, with sandy plains stretching toward Lake Superior. It contains most of the mineral wealth of the State, and parts of it are covered with forests of pine, maple, and other trees, but the soil is generally sterile.

Rich deposits of copper and iron are found in this peninsula. The copper mines are among the most productive in the world, and the iron mines, which rank with the most valuable in the country, are now being rapidly developed.

The famous Pictured Rocks, on the southern shore of Lake Superior, are sandstone rocks of various colors, worn by the frost and waves into many strange forms—arches, columns, gateways, etc.—which, seen from the lake, resemble castles.

22. The **Southern** peninsula is generally level or undulating, with a very rich soil. There are extensive forests of white pine and other trees.

Wheat is the staple product. There are rich deposits of coal, salt, and gypsum.

The leading industries of the State are agriculture, grazing, lumbering, fishing, mining, manufacturing, and commerce. The principal manufactures are lumber, flour, machinery, wagons, and furniture. Live-stock, dairy products, salt, iron, and copper are largely exported.

23. Towns.—Detroit, the largest city in Michigan, has the best harbor of all the cities on the great lakes. The domestic trade and the commerce with Canada are very large. The manufactures are extensive, and are rapidly increasing.

Questions.—Describe the northern peninsula of Michigan. What is said of the mines of Michigan? Of the Pictured Rocks? Of the southern peninsula? What is the staple product? Name the leading industries. Minerals. Manufactures. Exports. Describe Detroit. Name the other chief towns.

Grand Rapids (at the rapids of Grand River), Saginaw, Jackson, Bay City, Kalamazoo, and Muskegon are prosperous places. Lansing is the capital. Ann Arbor is the seat of Michigan University.

WISCONSIN.

24. The **Surface** of Wisconsin consists, in general, of a high rolling plain crossed by ridges of hills, from which the rivers flow toward the Great Lakes or the Mississippi. There are many clear, deep lakes, and the numerous swift, sparkling streams abound with rapids and falls, presenting scenes of great natural beauty.

The lakes and the rivers of the State are valuable not only for the commercial facilities that they afford, but also for the abundant water-power that they furnish, giving great advantage to manufacturing.

25. Productions and Occupations.—Wisconsin produces a great amount of lumber, grain, lead, zinc, and iron. Agriculture and grazing are the leading industries. Lumbering, mining, and manufacturing are next in importance. There is an extensive commerce in bread-stuffs, provisions, and lumber.

The northern half of the State is covered with forests of white pine. An exceedingly rich belt of valuable iron ore extends from near Ashland, eastward, into Michigan.

26. Towns.—Milwaukee, the largest city, is the principal lake-port. It is a great wheat market, and has a very large trade and important manufactures.

Madison, the capital, and the seat of the State University, is a beautiful city. La Crosse, Oshkosh, Racine, Eau Claire, Sheboygan, Fond du Lac, and Superior are important commercial and manufacturing towns.

Questions.—Describe the surface of Wisconsin. Why is the scenery so picturesque? Name the chief productions. Occupations. Where are the forests? Describe Milwaukee. Name the capital. The other chief towns. In what basin is Michigan? In what basins is Wisconsin? How can you tell?

QUESTIONS ON THE MAP OF THE EAST-CENTRAL STATES.**Position and Outline.**

This section lies east of what great river? South of what lakes? Name the most southern of these States. Which extends farthest north? Farthest west? Farthest east? Bound each State. Describe each of the Michigan peninsulas. Which States border on the Great Lakes?

Lakes and Rivers.

What States are on the east bank of the Mississippi? On the banks of the Ohio? What rivers of Wisconsin flow into the Mississippi? What rivers of Illinois? Name the northern branches of the Ohio. The southern.

What river in Wisconsin flows into Lake Superior? What lake and rivers into Green Bay? Of what lake is that bay an inlet? Into what two lakes do the rivers of the northern peninsula of Michigan flow? The southern peninsula? Into what lake do the rivers in the northern part of Ohio flow? Name the largest.

In what basin does Kentucky lie? Michigan? What part of Wisconsin is in the St. Lawrence Basin? Of Illinois? Indiana? Ohio?

How do the waters of Lake Superior and Lake Michigan flow into Lake Huron? Name the two bays of Lake Michigan. What rivers flow into it? By what river and lake does Huron discharge into Erie? What two bays of this lake in Michigan? What river empties into Thunder Bay? Into Saginaw Bay?

Towns.

Describe the situation of the following towns:—

Kentucky.—Louisville, Covington, Newport, Henderson, Paducah, Maysville, Lexington, Frankfort, Bowling Green.

Ohio.—Cincinnati, Cleveland, Columbus, Dayton, Toledo, Sandusky, Springfield, Hamilton, Akron, Portsmouth, Zanesville, Mansfield, Chillicothe, Xenia, Steubenville, Youngstown.

Indiana.—Indianapolis, Evansville, Fort Wayne, Lafayette, Logansport, Madison, New Albany, Terre Haute, Richmond, Michigan City, South Bend.

Illinois.—Chicago, Springfield, Peoria, Quincy, Bloomington, Rockford, Galesburg, Aurora, Freeport, Jacksonville, Galena, Alton, Ottawa, Decatur, Danville, Rock Island, Elgin, Joliet, Kankakee, Cairo.

Michigan.—Detroit, Grand Rapids, Saginaw, Bay City, Muskegon, Jackson, Kalamazoo, Port Huron, Battle Creek, Lansing, Manistee, Alpena, Ann Arbor.

Wisconsin.—Milwaukee, Fond du Lac, Oshkosh, Racine, Madison, Prairie du Chien, La Crosse, Janesville, Eau Claire, Green Bay, Beloit, Sheboygan.

Miscellaneous.

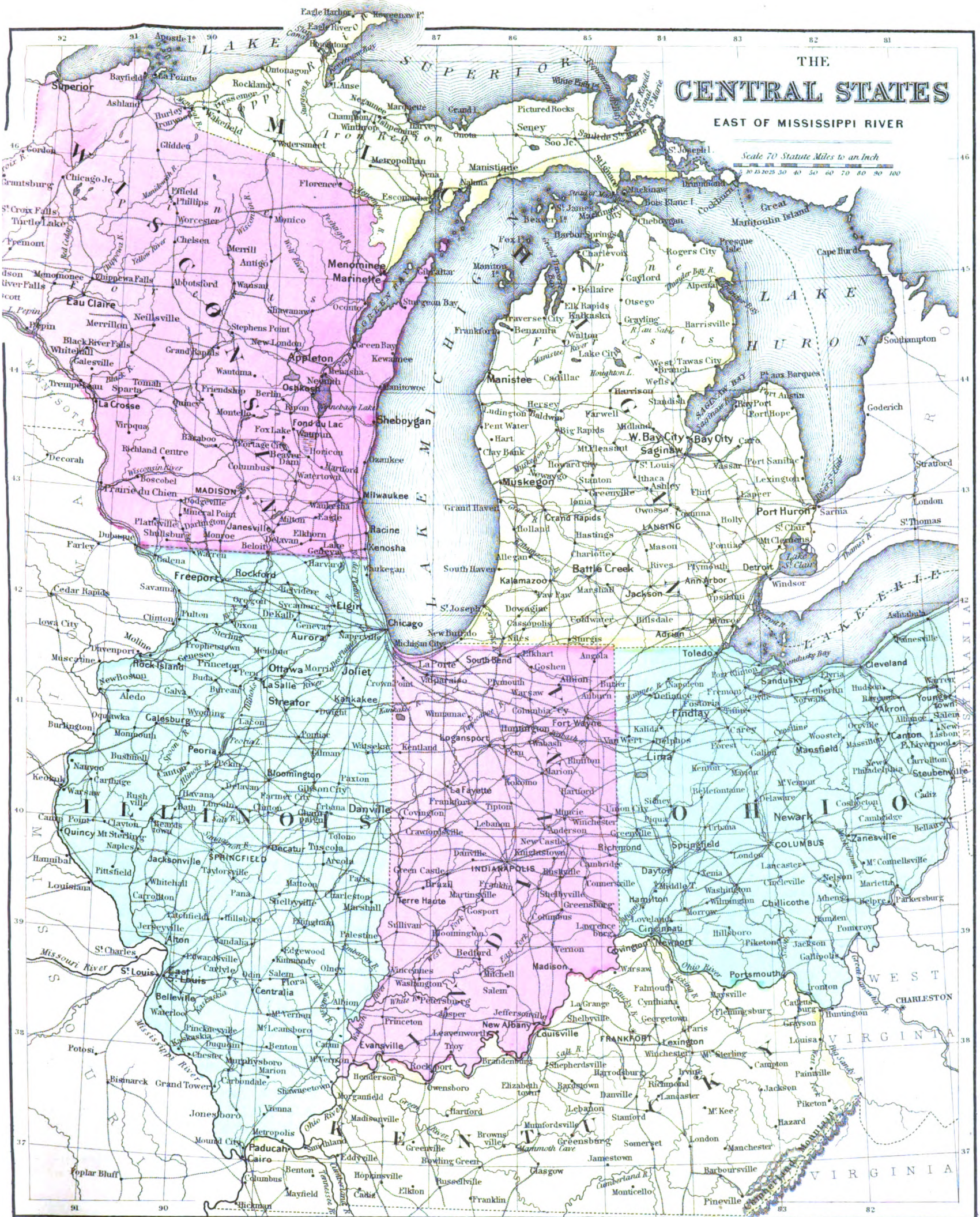
Name the towns on the Mississippi. On its branches (except the Ohio). On the northern bank of the Ohio. The southern. On the northern branches. The southern. On the Great Lakes, including inlets. On the rivers flowing into the Great Lakes.

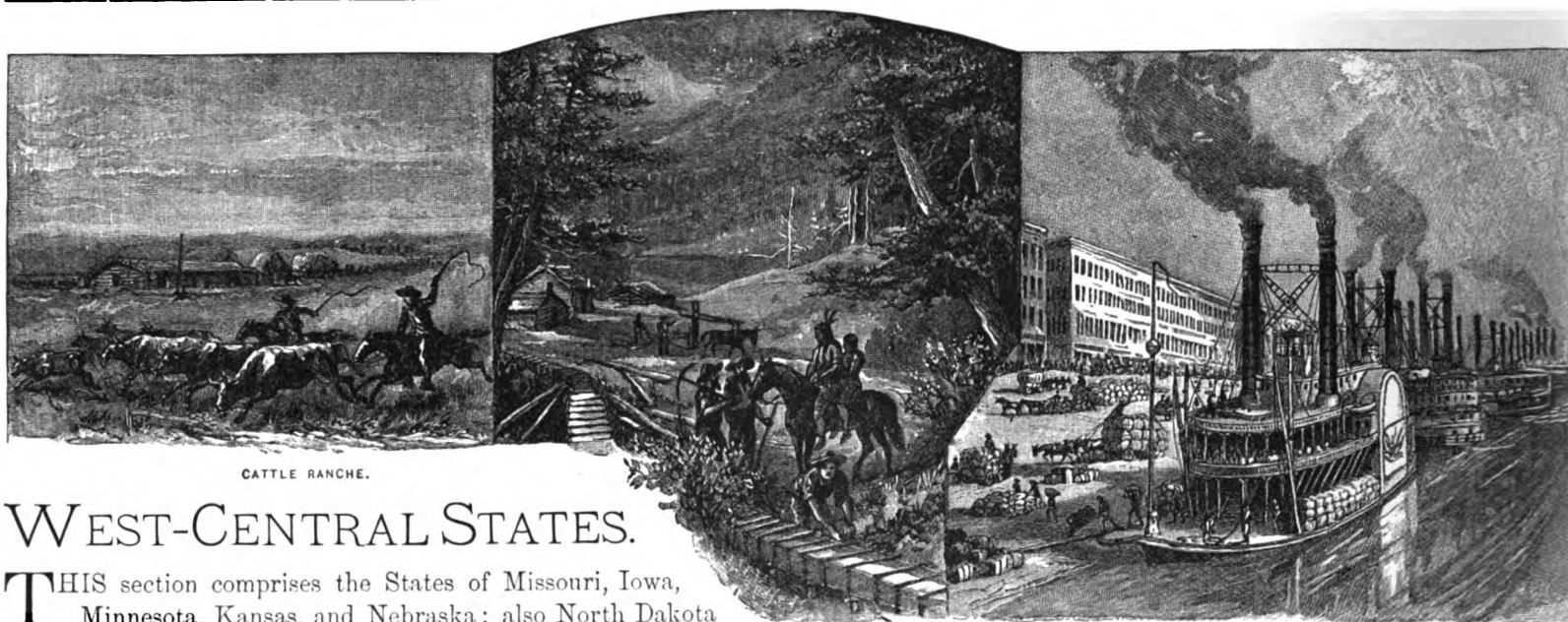
In what larger basin is the basin of the Ohio included? What States are wholly or partly in the Mississippi Basin? Wholly or partly in the St. Lawrence Basin? In which basin is Chicago? Toledo? Detroit? Load a brig with grain and flour at Chicago for Montreal: by what waters would she go? At Montreal the cargo is transferred to a large steamer: follow the route to Liverpool.

Name the leading manufactures of this section. The principal agricultural products. Grazing products. What articles are made here from grain? What are the animal products? Which is the warmest State? The coldest?

The largest cities of this section are Chicago, Cincinnati, Detroit, Milwaukee, Louisville, Cleveland, and Indianapolis: describe the situation of each, and tell all you know about it.

Spell the following words: Milwaukee, Sault de Ste Marie, Mackinaw, Saginaw, Wabash, Cincinnati, Marquette, Terre Haute, Eau Claire.





CATTLE RANCHE.

MINING.

ON THE MISSISSIPPI.

WEST-CENTRAL STATES.

THIS section comprises the States of Missouri, Iowa, Minnesota, Kansas, and Nebraska; also North Dakota and South Dakota, which formerly constituted Dakota Territory.

2. The Surface is generally level or undulating, and the land rises gradually from the Mississippi to the height of 2500 or 3000 feet on the western border.

The only mountains are the Black Hills, in South Dakota, whose highest summits are 5000 feet above the sea. They are a branch of the Rocky Mountains. The Ozark Mountains, in Missouri, are a series of hills, extending into Arkansas.

The banks of the streams in this section, as in the East-Central States, are often high and bold, rising into bluffs two or three hundred feet above the river.

3. The Lakes and Rivers belong to two systems:—The Mississippi and Hudson Bay. They are separated from each other by low hills or plateaus.

4. The Mississippi and the Missouri are the principal natural highways for commerce in these States. Steamboats ascend the Mississippi to St. Paul, in Minnesota. The Missouri is navigable from its mouth to the Great Falls, in Montana, but its tributaries are too shallow to be of much use for commerce.

5. The Basin of the Mississippi covers nearly the whole of the Central Plain of the United States, and is second in importance only to that of the Amazon.

The Mississippi rises in Lake Itasca, although a small lake called Elk Lake, which empties into Lake Itasca, is sometimes considered the source. From this lake to the Gulf of Mexico the length of the river is 2800 miles. If we reckon its length from the source of the Missouri, it is 4100 miles long. There is uninterrupted river navigation from the Gulf of Mexico to the Great Falls of the Missouri—a distance of 3000 miles.

"Missouri" means "muddy water." The Mississippi is comparatively clear until it receives the turbid waters of the Missouri. Below that point it is discolored.

6. Climate.—The winters are mild, except in the far north, where the cold is very severe. Though the summer days are hot, the summer nights are cool.

7. The western part of this section is in the Great Plains—the high, barren region which slopes eastward from the Rocky Mountains.

Questions.—What is the general character of the surface of this section? Where are the mountains? The bluffs? To what systems do the waters belong? How far are the two principal rivers navigable? What is said of the tributaries of the Missouri? How large is the basin of the Mississippi? Describe that river. Where does it become muddy? Why? What is said of the Missouri? Describe the climate. Which State has the colder winters—Missouri, or Minnesota? Why?

8. The unproductiveness of the Great Plains is owing to their extreme dryness. The ocean breezes lose their moisture by the time they reach places so far inland; and there is, therefore, hardly any rain. But the country lying east of the Plains is well watered by moisture from the Atlantic Ocean and the Gulf of Mexico.

No distinct boundary can be given between the prairies and the plains, though the meridian of 100° is often used for that purpose.

9. Productions and Occupations.—Agriculture and grazing are the leading pursuits; for the soil is generally very rich, and the pasturage almost everywhere abundant. Grain and live-stock are the staple products.

10. Although the Plains are too dry for agriculture, they yield a very nutritious kind of grass called "buffalo grass," which dries into hay without being cut, and affords excellent pasturage all the year, supporting herds which require no housing.

There are belts of valuable timber along the streams, and in Minnesota there are extensive forests, as in Michigan and Wisconsin.

Mining is a profitable and important occupation. Coal and iron are abundant in this section. The iron mines of Missouri are among the richest in the world. Missouri, Kansas, and Iowa are rich in lead deposits. Copper, zinc, and salt abound in certain districts. South Dakota has valuable gold-mines.

Manufacturing is fast growing in importance, and is, in many districts, a leading interest, owing to the abundant water-power and extensive coal-fields in the section. Flour-mill products, sawed lumber, packed beef and pork, are among the chief manufactures.

11. The commerce is mostly domestic, and is carried on by the Mississippi and Missouri Rivers, and by many railroads connected with all parts of the country.

The exports are grain, live-stock, flour, liquors, packed pork, hams, wool, lumber, lead, iron, hemp, and tobacco. The principal imports are the manufactures of the Eastern and Middle States, cotton from the South, and a variety of goods from foreign countries.

Questions.—Where are the Great Plains? Why are they sterile? Why dry? Why is the country east of them moist? What are the staple products? Why? What furnishes pasturage on the Plains? Where is the timber? Where are the minerals? What is said of manufacturing? Which State of this section is largely engaged in this business? What are the chief manufactures? How is the commerce carried on? Name the exports. The imports.



12. Surface.—North of the Osage and Missouri Rivers the country is an undulating or a level prairie, with woodlands along the streams. South of this, the surface is undulating or hilly, and, in some parts, rugged and broken.

13. Productions and Occupations.—The chief industries are agriculture, grazing, manufacturing, mining, and commerce.

Grain, hemp, tobacco, live-stock, and wool, are the principal farming products; lumber, flour-mill products, and packed meats, the leading manufactures.

A large part of the State is adapted to vine-growing, and quantities of wine are made. Cotton, hemp, and flax grow well in the southern counties.

The coal-fields are extensive, and the mines of iron and of lead are among the richest in the world. Iron Mountain and Pilot Knob are masses of valuable iron-ore. Copper, tin, zinc, nickel, kaolin, and building-stone add to the mineral wealth of the State.

14. Towns.—St. Louis is the commercial centre of the Mississippi Valley, and one of the largest cities in the country. Although its commerce is immense, the prosperity of the city is mainly due to manufactures. The leading manufactures are flour, packed beef and pork, iron and leather goods.

15. The commerce is chiefly in grain and flour, live-stock and provisions, cotton, lead, and iron. A magnificent steel bridge across the Mississippi greatly increases the commercial advantages of St. Louis.

Kansas City is the center of trade for the Missouri Basin; St. Joseph, for the north-western part of the State.

Springfield is in the midst of a rich lead region. Jefferson City is the capital.

IOWA.

16. Surface.—This is chiefly a land of rolling prairies, with abundant timber in the southern half of the State and along the rivers. The forests consist almost wholly of deciduous trees.

The deep soil of the prairies is highly productive, and the rich alluvial lands of the Missouri Valley need little, if any, fertilizing to make them a source of profit to the husbandman. There is scarcely any marsh or waste land in Iowa.

Questions.—Describe the surface of Missouri. Name the products of agriculture. Of grazing. Mining. Manufacturing. What are the leading industries? Describe Iron Mountain. Pilot Knob. What position does St. Louis hold in regard to commerce? In manufactures? Name the leading manufactures. What is said of Kansas City? Of St. Joseph? Springfield? Jefferson City?

17. Productions and Occupations.—Iowa owes its prosperity chiefly to its grain-fields, pastures, and mines. A great coal-field underlies the middle districts, and the lead region of Wisconsin and Illinois spreads into the eastern part of the State. There are inexhaustible quantities of the finest building stone and valuable clays.

Iowa is a leading State in the production of cereals and live-stock. The dairy-products are of great value, owing to the pure waters and the fine pasturage in many districts. The commerce is extensive; the chief exports are corn, oats, wheat, and grazing products, lumber, farming implements, iron, lead, machinery, bricks, and pottery.

18. Towns.—Des Moines, the capital, is the largest city and the most important railroad center in the State. Sioux City is next in size. Dubuque is an important lead-market.

Davenport and Burlington have extensive commerce and manufactures. Council Bluffs, Cedar Rapids, and Keokuk are important places.

MINNESOTA.

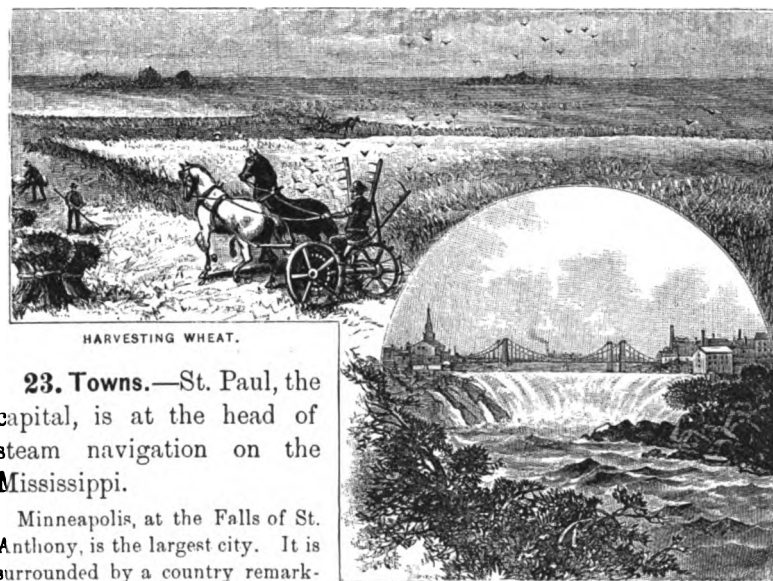
19. Surface.—Minnesota is a high, rolling plain, consisting of small prairies varied by wooded hills. The northern part of the State is covered with forests of deciduous trees.

20. Minnesota is distinguished for the number and the beauty of its lakes, of which there are about seven thousand.

The State is remarkable for its picturesque scenery. The Mississippi is studded with islands and bordered by high bluffs. St. Anthony's Falls, in the Mississippi, and the famous Falls of the Minnehaha are exceptionally romantic and beautiful.

21. The Climate is dry and healthful. The winters are cold, but the fall of snow is light; the summers have warm days, with cool, breezy nights; spring and autumn are mild, delightful seasons.

22. Productions and Occupations.—Grain and the pine forests are the chief sources of wealth. Wheat, flour, and lumber are largely exported.



23. Towns.—St. Paul, the capital, is at the head of steam navigation on the Mississippi.

Minneapolis, at the Falls of St. Anthony, is the largest city. It is surrounded by a country remarkable for the beauty of its scenery.

The falls afford immense water-power for numerous flour-mills and saw-mills. The flour-mills of Minneapolis are the most extensive in the world.

Duluth is the most western port of Lake Superior, and is the eastern end of the Northern Pacific Railroad. Winona, Stillwater, Mankato, Saint Cloud, Faribault, and Red Wing are important towns.

Questions.—Describe the surface of Iowa. The productions. What is said of Des Moines? Sioux City? Dubuque? Davenport? Burlington? Other towns? Describe the surface of Minnesota. The scenery. The climate. Name the productions. Where are the forests? What is said of St. Paul? Of Minneapolis? Of Duluth? Name the other principal towns. In what basins is Minnesota?

KANSAS.

24. Surface.—The greater part of Kansas is a plain which rises to the height of 2500 or 3000 feet upon the north-western border.

The western part in the Great Plains is too dry for agriculture. The rest of the country is well watered by numerous streams, which are lined with timber.

25. Productions and Occupations.—The rich pasturage of the State and the naturally-produced hay of the Plains are peculiarly suitable for grazing, as the cattle need no housing in winter.

Vast herds of cattle are raised, and form the chief wealth of the people. Fine crops of grain, hemp, flax, fruits, and vegetables are produced. Coal, lead, zinc, salt, clays, and building-stone abound in certain parts.

26. Towns.—Topeka, the capital, is one of the largest towns in the State. Most of the towns are on the great rivers, and are rapidly increasing in population and importance.

Kansas City, Wichita, Leavenworth, Atchison, and Fort Scott are among the most flourishing towns, and are rapidly growing in importance.

NEBRASKA.

27. Surface.—Like Kansas, this State consists chiefly of an elevated undulating plain. There are no mountains except in the northern part, where the foot-hills of the Rockies appear.

28. The Climate has extremes of temperature, but its dryness serves to modify these extremes and to make the climate healthful.

29. Productions and Occupations.—Corn, wheat, and oats are the great staples. Tobacco and garden fruits and vegetables are cultivated with great success. The grazing products are among the most valuable exports. Coal, salt, and building-stone are found in the State. Manufacturing is increasing in importance.

30. Towns.—Omaha is the largest town. Lincoln, the capital, Beatrice, Hastings, and Nebraska City are flourishing manufacturing and commercial centers.

Questions.—Describe the surface of Kansas. Why is grazing the leading business? Name the principal productions. Occupations. What is the capital? Where are most of the towns? Name the principal town. The other towns. Describe the surface of Nebraska. The climate. Name the chief productions. Occupations. Which is the largest town in the State? Name the capital. Name some of the important manufacturing towns.

NORTH DAKOTA.

31. Surface.—The greater part of the State is level prairie-land. The only high land is the Plateau of the Missouri Hills, which traverses the State from north-west to south-east, continuing into South Dakota.

Along the eastern slope of the plateau are a number of salt lakes, the largest of which is Lake Minnewakan.

32. The Climate is noted for its extremes.

Most of the great storms which prevail throughout the northern and eastern part of the United States have their origin in the section which includes this State and those immediately surrounding it.

33. Productions and Occupations.—The alluvial lands along the Missouri and its branches are exceedingly fertile, and produce grain in abundance. Agriculture and grazing are the principal pursuits.

34. Towns.—Bismarck, the capital, is situated on the Missouri River. Fargo, near the head of navigation on the Red River of the North, is the largest town and a railroad and commercial center. Pembina is the oldest town.

SOUTH DAKOTA.

35. Surface.—The character of the country is like that of North Dakota. In the south-west are elevations known as the Black Hills and a desert tract called the "Bad Lands," which extends into Nebraska.

36. The Climate and the seasons resemble those of Minnesota.

37. Productions and Occupations.—Farming and stock-raising are the principal industries. Rich deposits of gold are found in the Black Hills, and mining is profitably conducted in that region.

38. Towns.—The population of the State is rapidly increasing. The most important towns are Pierre, the capital, Yankton, Sioux Falls, Huron, and Deadwood—the center of the mining interests.

In the Western part of the State a tract of land is reserved as a home for the various tribes of the Sioux Indians.

Questions.—Describe the surface of North Dakota? What high land crosses this State? What is said of the climate? Of the storms? What are the principal products and occupations? Where are the lakes situated? Name the capital of North Dakota? The largest town? Which is the oldest town? What elevations of land are found in South Dakota? What are the principal industries of the State? Name the most important towns.

QUESTIONS ON THE MAP OF THE WEST-CENTRAL STATES.**Position and Outline.**

What country is north of this section? What States and lake are east? What State and Territory on the south? Bound Missouri. (*For this and some other questions, see the Map of the United States, page 32.*) Bound Iowa, Minnesota, Kansas, Nebraska, North Dakota, South Dakota.

Surface, Lakes, and Rivers.

Where are the Black Hills? The Ozark Mountains? What great river rises in Minnesota? Between what States does it flow? What branch flows between Minnesota and Wisconsin? What great river empties into the Mississippi above St. Louis?

Name the principal branches of the Mississippi in this section. The principal branches of the Missouri. To what great river system do all these rivers belong?

What river is between Dakota and Minnesota? Into what lake does it flow? (*See Map of North America.*) Into what bay does this lake discharge its waters? By what river? Where is the Lake of the Woods? What three lakes empty into Lake of the Woods by Rainy River? Into what large lake does Lake of the Woods, with its tributaries, flow?

To what river system does the Red River of the North belong? In what direction does it flow? To what system do the Lake of the Woods and its tributaries belong? What great lake is on the eastern border of Minnesota? What river flows into it at Duluth? To what river system do this lake and river belong?

Towns.

Describe the situation of the following towns:—

Missouri.—St. Louis, Kansas City, St. Joseph, Hannibal, Springfield, St. Charles, Jefferson City, Sedalia.

Iowa.—Dubuque, Davenport, Burlington, Des Moines, Sioux City, Council Bluffs.

Minnesota.—St. Paul, Minneapolis, Winona, Duluth, Red Wing, Mankato, Faribault, Stillwater, St. Cloud.

Kansas.—Kansas City, Leavenworth, Atchison, Fort Scott, Topeka, Wichita.

Nebraska.—Omaha, Lincoln, Beatrice, Hastings, Nebraska City.

North Dakota.—Bismarck, Fargo, Pembina, Grand Rapids.

South Dakota.—Yankton, Deadwood, Huron, Sioux Falls, Pierre.

Miscellaneous.

Which of the foregoing towns are on the Mississippi River? On the Missouri? Trace the passage of a vessel from Duluth or Chicago to the Gulf of St. Lawrence, referring to the Maps of the East-Central States, and the Map of the British Provinces. How would she pass the rapids of the Sault de Ste Marie? From Lake Erie to Lake Ontario? *Ans.* By the Welland Canal. Vessels may descend the rapids in the St. Lawrence, but in ascending the river they must take the canal at Montreal. Describe the return of the vessel from the Gulf of St. Lawrence to Duluth? By what railroad will a party of travelers proceed from Omaha to San Francisco? What river in Nebraska does that railroad follow? What goods are received from the South at St. Louis?

THE CENTRAL STATES

WEST OF MISSISSIPPI RIVER

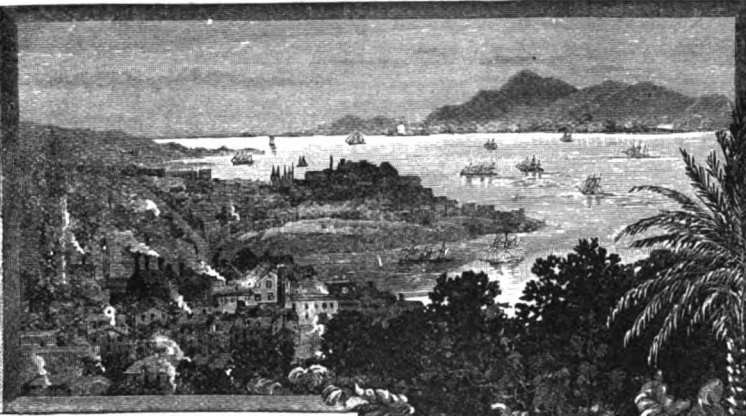
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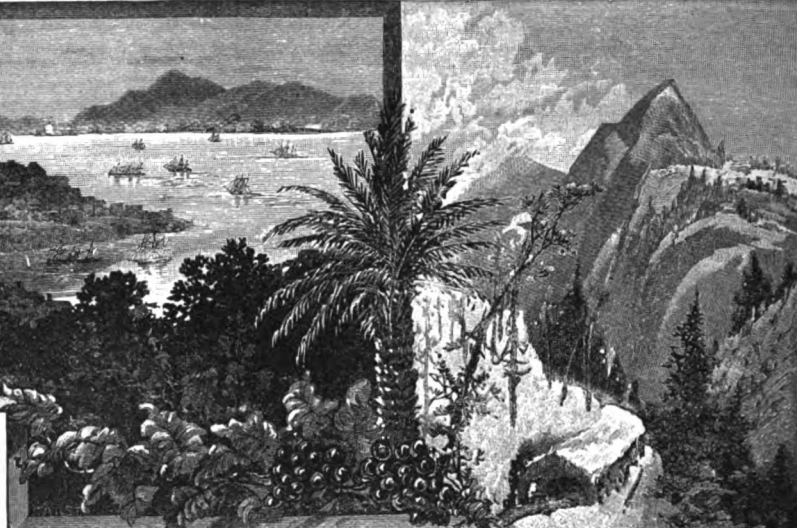




SALMON-FISHING.



SAN FRANCISCO.



THE GOLDEN GATE.

WINTER SCENE ON

THE PACIFIC R. R.

THE PACIFIC STATES AND TERRITORIES.

THIS section comprises the States of California, Oregon, Nevada, Colorado, Washington, Montana, Idaho, and Wyoming, and the Territories of Alaska, Utah, Arizona, and New Mexico. All of them are wholly or partly upon the Pacific Highlands or the Pacific Slope, and are therefore called the Pacific States and Territories.

2. Surface.—Most of this section is occupied by the Western Plateau of North America, which here attains its greatest width,—about 800 miles,—and is from 2000 to 9000 feet above the sea. The Plateau is bordered by the Rocky Mountains and the Sierra Nevada, and is crossed by many lower and shorter chains.

The Rocky Mountains and the Sierra Nevada are lofty ranges, whose snow-capped summits rise from 5000 to 15,000 feet above the sea. The Sierra Nevada and Cascade Mountains form one continuous range, but the Rocky Mountains are composed of several parallel chains connected by cross ranges which form separate basins or plateaus.

3. East of the Rocky Mountains the land gradually descends from a height of about 5000 feet to the Mississippi River. The western part of this slope is called the Great Plains.

4. Low ranges called the Coast Mountains skirt the Pacific coast. The country between them and the Sierra Nevada and Cascade Range consists chiefly of broad and fertile valleys.

Thus we see that the Pacific States and Territories form three natural divisions:—

1. The Great Plateau, with its mountain-chains; 2. The Great Plains on the east;
3. The low valleys and the Coast Mountains on the west.

5. Rivers.—Most of the rivers rise in the Rocky Mountains, and their waters finally reach the Pacific Ocean or the Gulf of Mexico. The principal rivers are the Missouri and the Arkansas, the Columbia and the Colorado.

Many of the streams flow through gorges called *cañons*, whose sides often rise to a great height. In the Grand Cañon of the Colorado, in Arizona, the deep and narrow current flows between massive walls that in some places rise to a height of more than 6000 feet above the river.

6. The Missouri is navigable for small steamboats from the

Gulf of Mexico to the Great Falls. Many of the rivers of this section are so obstructed by rapids, or lie so far below the level of the surrounding country, that they are of little commercial importance.

Large steamboats ascend the Columbia to the rapids, where it breaks through the Cascade Range, and the river is also navigable for a great distance above that point. The Colorado is navigable for steamboats to Callville, 600 miles from its mouth.

7. Lakes.—The Yellowstone, the Klamath, and the Pend d'Oreille are among the largest of the fresh-water lakes. There are many salt lakes, which have no outlet. They occur chiefly in the Great Basin of Utah and Nevada.

The Great Salt Lake, in Utah, is the largest of this class. The water of Utah Lake, which flows into it by the Jordan River, is perfectly fresh and pure.

8. The Climate of this section, as a whole, is dry, equable, and mild. The winters are warmer than in the country farther east, and the difference between summer and winter is not so great.

The climate of the Highlands presents greater extremes of temperature than that of the Coast Region.

9. The Coast Region receives abundant moisture from the Pacific Ocean. This is especially true of Oregon, Washington, and Alaska. California is drier.

The year, in California, Oregon, and Washington, is divided into two seasons,—the wet and the dry, corresponding, in a measure, to summer and winter. The rains fall between November and April. The snow-fall is very light, except among the mountains. Indeed, there is no snow at all on the lowlands of California.

10. The Plateau and the Great Plains are very dry; for the moisture from the Pacific is cooled in crossing the snow capped Sierras and the Rocky Mountains, and descends upon their slopes in the form of rain or snow. The fall of snow or rain is, therefore, very light on the Plateau and the Plains.

The summer is hotter and the winter colder than upon the coast. On the mountains and the higher parts of the plateau, especially at the north, the winter is intensely cold; and the changes of temperature are often very great and sudden.

Questions.—What three divisions does this section form? Describe the Plateau. The Rocky Mountains. The Sierra Nevada and the Cascade Mountains. The Great Plains. The coast ranges and the valleys. Is most of this section high land or low land? Where is the low land? Is the land east of the Rocky Mountains high or low? Name four large rivers. Where do they rise? Into what water does each flow? Describe the Grand Cañon.

Questions.—How far is the Missouri navigable? The Columbia? The Colorado? Why are many rivers of little value for commerce? Name the largest salt lake. What fresh water lake flows into it?

What is the general character of the climate of this section? Describe that of the Coast Region. What is said of the seasons? The climate of the Plateau and Great Plains? What is said of the winter and summer on these high lands?

11. Vegetation.—In the Coast Region, the mountain sides and a large part of the valleys are densely wooded with the grandest cone-bearing evergreens in the world. Some of them are 35 feet in diameter, and nearly 400 feet high.

12. Grass grows luxuriantly, and grain and fruit are raised in abundance. The nights are so cool, however, throughout the Pacific States and Territories, that corn does not ripen well.

Southern California is not so well timbered as the rest of the Coast Region, and produces very little grass. But there is an abundance of clover, wild-oats, and other pasturage, and hay is made from wheat, oats, and barley.

13. The Plateau and the Great Plains are the driest and least fertile parts of the United States. A large part of the region is a desert; but where the land can be irrigated, the soil is generally found to be highly productive.

On the mountain sides are forests of pine, cedar, and other cone-bearing evergreens; and along the streams are groves of cotton-wood, willow, etc. Some of the land near the base of the mountains, and in the valleys, and along the larger streams, can be cultivated, but it is better adapted to stock-raising than to tillage.

The *sage-brush*, *sand-grass*, *bunch-grass*, and *buffalo-grass*, afford excellent pasturage all the year; and the cattle require no housing in winter.

14. Animals.—Among the wild animals of the Pacific States and Territories, are the grizzly, the brown, and the black bear; the panther, the wolf, and the coyote; the bison (or buffalo), the elk, the common deer, the antelope, the prairie-dog.

The buffaloes, which used to roam in such vast herds over the plains, are now less numerous, and, before long, will be extinct.

The prairie-dog is a little animal, somewhat like a woodchuck, and having a bark like a small dog. He lives in a hole which he digs in the ground, throwing up the earth in a mound, and sharing his habitation with the owl and rattlesnake. The prairie-dog settlements sometimes cover a great extent of country.

15. Inhabitants.—The greater part of this section is still thinly settled, but its varied resources have so encouraged immigration that the population is rapidly increasing. Chinese are found in nearly all parts of the section.

Most of the uncivilized Indians in our country are found in this section. They subsist by hunting. Some of the tribes are very fierce and cruel, as the frequent wars with the whites prove. In Arizona and New Mexico the half-civilized Indians are friendly to the whites. They build stone or adobe houses, raise cotton, grain, and cattle, and weave their own garments.

16. Productions and Occupations.—On the Plateau, stock-raising and mining are the most important pursuits. Gold and silver are the leading minerals; but copper, lead, iron, tin, quicksilver, coal, salt, and other useful minerals are abundant. In the Coast Region, agriculture, stock-raising, and lumbering are the principal occupations. California is also largely engaged in mining and manufacturing.

17. The Commerce with the States east of the Rocky Mountains, is carried on by the Pacific railroads, and by steamers which connect with the Panama Railway.

Gold and silver are largely exported from this section; wheat, wine, and fruit from California, and lumber from Washington, California, and Oregon.

Questions.—Where are the forests in the Coast Region? Describe them. What other vegetation in this division? Why does not maize ripen well? What is said of the forests of California? Of the pasturage?

Describe the soil and vegetation of the Plateau and Plains. Where do the cone-bearing trees grow? The willow and cotton-wood? What land can be cultivated without irrigation? What is the effect of irrigation? What advantages are there for stock-raising? Name the wild animals. Describe the prairie-dog. Why is this section thinly settled? What Asiatics are there? Describe the savages. Describe the half-civilized Indians.



SCENERY IN CALIFORNIA.

CALIFORNIA.

18. Productions and Occupations.—California, formerly the most noted gold-field of the world, is surpassed now only by Montana in the value of its gold product. It ranks among the leading States in the production of wine, wheat, barley, and wool.

The fruits of northern countries grow here in great perfection; and the southern half of the State produces a variety of semi-tropical plants, among them the orange, the lemon, the olive, the fig, the almond, and the mulberry.

The redwood, the gigantic sequoia, and many other varieties of evergreen trees furnish valuable lumber.

The famous gold-fields are on the western base of the Sierras. The quicksilver mines of New Almaden are the richest in the world. Valuable deposits of tin, copper, iron, coal, sulphur, borax, salt, etc., add to the great mineral wealth of California.

The manufactures are fast increasing, and consist chiefly of flour-mill products, wine, liquors, sawed lumber, molasses and refined syrup, leather, and iron-work. Agriculture, stock-raising, farming, and manufacturing are the principal pursuits.

Questions.—What is the leading business in the Plateau? Name the principal minerals. The others. Name the leading pursuits in the Coast Region. How is commerce carried on? Name the exports. Name the productions of California. Mention the semi-tropical plants. Where are the gold fields? The quicksilver mines? Name the other minerals. The manufactures.

19. Climate.—California has a dry climate, particularly in the San Joaquin Valley and the southern part of the State.

In the winter and the spring,—when the rain occurs,—the landscape is green and beautiful. In summer and autumn,—the dry season,—the ground is baked hard to the depth of several inches, and the whole country is dry and brown.

20. California has really several climates, depending less upon latitude than upon elevation and distance from the sea. The settler can find almost any climate that he likes.

West of the Coast Mountains, the summer is cooler and the winter warmer than in the interior. Probably no other part of the world has winters so warm and summers so cool as those of the coast region from San Francisco northward.

East of the Coast Range, the summer is intensely hot; thus, when San Francisco has a delightful temperature, the interior, shut off from the cool sea-breezes, glows with tropical heat.

21. Among the many natural curiosities of the State, are the groves of Big Trees, the famous Yosemite Valley, and the hot springs called the Geysers.

The Big Trees are in a belt extending along the Sierra Nevada southward from the Yosemite region, and some of them are supposed to be 2000 years old.

The Yosemite Valley is formed by a cleft in the Sierra Nevada, and is drained by the Merced River. The walls rise abruptly to the height of 4500 feet; and down these precipices many beautiful cascades descend to the green and level floor of the valley.

22. Towns.—San Francisco is the largest city on the Pacific coast of America, and has the best harbor. It is connected with the cities of the Mississippi Valley and the Atlantic seaboard by the Pacific railroads and the Panama route, and has lines of steamships to the Sandwich Islands, Australia, China, Japan, and to South American ports.

The leading exports are quicksilver, gold, wheat, fruit, flour, barley, and wine.

Sacramento, the capital, is the commercial center of the Sacramento Valley, and Stockton of the San Joaquin Valley. The other principal towns are Oakland, San Jose, Los Angeles, San Diego, Stockton, and Alameda.

OREGON.

23. The Cascade Range divides the State into two parts, called Eastern and Western Oregon, which differ greatly in climate and productions.

24. Western Oregon is abundantly watered by winds from the Pacific, and has a moist, mild, and equable climate.

The summers are cool; yet, except in the valleys, there is very little snow or ice in winter, though the country lies in the latitude of New England.

Grain, fruit, forests of pine, fir, and cedar, and the richest grass, abound.

25. Eastern Oregon belongs to the dry plateau region, and is better adapted to stock-raising than to tillage. The summers are hotter and the winters colder than in the western division.

Wheat, lumber, and salmon are the principal exports of the State. Gold and coal are mined to a considerable extent.

26. Towns.—Most of the population is in Western Oregon. Portland is the principal city. Salem is the capital.

Questions.—Describe the climate of California. Where is irrigation necessary? Why? When is the country green? Brown? Upon what do the differences in climate chiefly depend? What difference between the sea-coast and the interior? Why? What is there remarkable about the coast northward from San Francisco?

Name the natural curiosities. How old are some of the great trees? Describe the Yosemite Valley. Describe San Francisco. Sacramento. Stockton. Name the other chief towns. What are the exports of San Francisco?



THE BUTTE "EL MORO."

(Buttes are single peaks rising abruptly from the plain to the height of from 1000 to 2500 feet. They are found in the Coast Region and on the Plateau.)

WASHINGTON.

27. In surface, climate, and productions, this State resembles Oregon, though, being farther north, it is somewhat colder. The western division is moist, fertile, and heavily timbered. The eastern part, or plateau region, is dry, but well fitted for grazing.

The coal-mines of Washington are very valuable. The fisheries employ numbers of people. Wheat, lumber, live-stock, and fish are the chief exports.

28. Towns.—Olympia is the capital. Seattle, Tacoma, Spokane Falls, and Walla Walla are the largest towns.

ALASKA.

29. The interior has a climate of great extremes: the winters being dreadfully cold, and the summers hot. The coast district, between the mountains and the sea, is very moist and equable.

At Fort Yukon the mercury has been known to rise as high as 112°. At Sitka the summers are very cool, and the winters are warmer than those of Philadelphia; yet Sitka is farther north than Nain, in Labrador.

30. The warm Japan current, which sweeps around from the coast of Asia to the shores of Alaska, is the cause of the moisture and the uniform temperature on the western coast of Alaska.

31. Alaska is valuable for its furs, fisheries, and mineral wealth. Sitka is the seat of government. Juneau is the principal settlement.

The furs are from the sea-otter, the beaver, the seal, the ermine, the marten, and the fox.

Questions.—How is Oregon divided? Describe Western Oregon. Eastern. Name the chief exports of the State. The towns. What are the climate and productions of Washington? What part is adapted to agriculture? To grazing? Name the productions. The capital. Largest town.

Describe the climate of Alaska. What is the cause of the moisture and equability of the coast? Name the productions. What is said of the furs? Where is the seat of government? Describe the climate of Sitka. Where is Fort Yukon?



A FIGHT BETWEEN INDIANS AND UNITED STATES TROOPS.

IDAHO.

32. The greater part of this State is too dry to be cultivated without irrigation; but the mountain sides are clothed with forests, and there is an abundance of good pasturage.

The country is rich in gold, silver, quicksilver, and tin. Mining and grazing are the principal industries; and farming is made successful by means of irrigation.

33. Towns.—Boise City is the capital and principal town.

WYOMING.

34. Wyoming, like Idaho, is a table-land, crossed by many chains of the Rocky Mountains. Gold, silver, and useful minerals are found, and pasturage and timber are abundant. The numerous streams furnish every facility for irrigation.

The Union Pacific Railway is rapidly developing the resources of the southern part of the Territory, and the rich coal-mines are extensively worked.

The Black Hills extend from the Platte River into Montana and Dakota. They receive their name from the dark color of the rock, which, in some places, is almost black.

35. In the north-western part of Wyoming a tract of land, about 3600 miles in extent, has been set aside by Congress as a National Park. In natural curiosities it is unrivaled by any other district of equal size on the globe.

Among the most wonderful of the attractive features of this Park are Yellowstone Lake, the hot springs, the geysers, the waterfalls, and cañons. There are probably 50 geysers that throw columns of water from 50 to 200 feet high.

36. Towns.—Cheyenne is the capital and largest town.

MONTANA.

37. The western part of this State is a mountainous table-land. The eastern belongs to the Great Plains. Montana is now the greatest gold-producing region in the world. Silver, copper, iron, lead, coal, and fine building-stone are also found in great abundance.

There is good grazing, and timber is abundant among the mountains; but, except in the rich lands along the streams, irrigation is generally necessary for tillage.

There are two important railroads, and recent immigration has added largely to the population of the State.

38. Towns.—Helena is the capital and principal town.

Questions.—Is Idaho better adapted to grazing, or to tillage? Why? Where are the forests? Name the minerals. Why is the population small? Describe the surface of Wyoming. The productions. What pasturage is there? Where are the coal-fields? Describe the National Park. Name the principal towns. Describe the surface of Montana. Name the productions. Where are the forests? Is grazing or agriculture the most profitable? Why? Name the chief town.

NEVADA.

39. The larger part of Nevada belongs to the Great Basin—which is a barren table-land 4500 feet high, crossed by parallel mountain-chains, extending north and south.

Most of the State is a desert; but the eastern slopes of the Sierra Nevada are covered with forests, and the sand-grass and sage-brush afford excellent pasturage.

40. The great wealth of Nevada is in its silver mines, which are the richest in the world. Gold, copper, iron, lead, borax, salt, and sulphur, are found in abundance.

The deposits of soda and salt are really marvelous. In the south-east there are "salt bluffs" 500 feet high, forming a mass of rock-salt two miles long and one and a half miles wide. On one lake in Nevada, soda forms in a state almost pure.

41. Towns.—Virginia City is the largest town. Carson City is the capital.

UTAH.

42. The Wahsatch Mountains divide Utah into two parts, the eastern part belonging to the Colorado Basin, and the western to the Great Interior Basin.

Gold, silver, and lead are mined. There is timber upon the mountains, and sand-grass and bunch-grass grow upon the plains; but the country is, naturally, a desert. However, where the streams have made irrigation comparatively easy, the soil has yielded bountiful crops, and agriculture is a leading industry.

43. Many of the people are Mormons, a religious sect. Their settlements are principally around Great Salt Lake, along the western base of the Wahsatch Mountains, and in the Rio Virgen Valley.

By means of extensive irrigation and great industry the Mormons have fine crops of grain in their districts. The other white inhabitants, whom the Mormons call Gentiles, are engaged in mining. Stock-raising is a growing industry.

44. Towns.—Salt Lake City is the principal town, and one of the largest upon the Great Plateau. Ogden and Provo are flourishing towns on the railroad.

Questions.—Describe the surface of Nevada. The soil. The vegetation. Name the principal mineral. The others. What is said of the salt and soda? Of the towns? Describe the surface of Utah. What is the character of the soil? Where has irrigation been extensively practiced? Who are mostly engaged in mining? In farming? Who are the Mormons? Where are their settlements? Who are the Gentiles? Describe the principal town.



COLORADO.

45. Colorado is crossed by the Rocky Mountains, which enclose beautiful valleys, called Parks. The highest of these is about 9000 feet above the sea. East of the mountains are the Plains.

The insufficient rain-fall is a hindrance to agriculture, but irrigation has developed the resources of a naturally fertile country, and amply repaid the husbandman. The parks have a rich soil, and are clothed with luxuriant grasses; and their hills are covered with fine forests abounding in game.

46. Productions and Occupations.—Gold, silver, lead, coal, iron, copper, salt, soda, marble and other building-stones, grain, grazing products, and timber, are the chief productions. Mining is the principal pursuit, but agriculture, stock-raising, and wool-growing afford employment to great numbers of the people.

47. Towns.—Denver, the capital and largest city, is on the Plains, more than 5000 feet above the sea. Pueblo, Colorado Springs, Leadville, and Trinidad are thriving towns.

ARIZONA.

48. Mountain chains cross the Territory from north-west to south-east. East and north of the mountains lies a high table-land, with forests of pine and a rich growth of grass.

The greater part of the Territory is too dry for tillage. The cultivated lands irrigated from the neighboring streams produce grain, fruits, and vegetables. The

Questions.—Describe the Parks of Colorado. Where are the Plains? What is said of the soil? Name the chief products. Principal pursuit. Describe Denver. Name other important towns. Describe the surface of Arizona. What are the principal minerals of Arizona?

valleys and the mountain-slopes afford excellent pasture, and stock-raising is an important industry.

49. Immense quantities of gold, silver, copper, coal, and salt have been found in Arizona. The hostile Apaches have been subdued, and immigrants are coming into the country in large numbers.

The new railroad connecting the Territory with San Francisco will help to develop the resources of the country.

50. Towns.—Phoenix is the capital, Prescott is the principal trading point, and Tucson is the largest town.

NEW MEXICO.

51. The centre of the Territory is crossed by mountain ranges, between which and Sierra Madre lies the great valley of the Rio Grande. The Great Plains east of the mountains are called, in New Mexico and Texas, the Llano Estacado.

The Llano Estacado is a desert, and a great part of the Territory is unfit for tillage; but the river-lands yield abundant crops, and the mountains are covered with evergreen forests. As a grazing country, New Mexico is unsurpassed. The stock are never housed, and are raised at very little expense.

Mines of gold, silver, copper, iron, and coal are part of the great mineral wealth of the Territory. A large part of the population of New Mexico are Mexicans.

52. Towns.—Santa Fe is the capital and principal town. Albuquerque is next in importance.

Questions.—What will help to develop the resources of Arizona? What is the capital? Describe the surface of New Mexico. What is said of the Llano Estacado? Of the mines? Of the population. What is the capital of New Mexico? What is said of Albuquerque?

QUESTIONS ON THE MAP OF THE PACIFIC STATES AND TERRITORIES.**Position and Outline.**

What country is on the north? On the south? What ocean on the west? Bound Alaska. (*See U. S. Map.*) What States on the Pacific coast? Name the three on the northern border. Name States or Territories on the eastern border. The southern. The remaining two. Locate the Santa Barbara Islands. Point Concepcion. Cape Mendocino. Cape Blanco. Cape Foulweather. Cape Flattery. San Francisco Bay. Puget Sound. Strait of Juan de Fuca. Name the islands on the coast of Alaska.

Surface.

In what direction do the Rocky Mountains extend? The Sierra Nevada and Cascade Mountains? The Coast Mountains?

Locate the following:—Sierra Madre, Guadalupe Mountains, San Juan, Black Hills, Big Horn, Sweet Water, Wind River, Bitter Root. Where are the following peaks:—Spanish Peak, Pike's, Long's, Laramie, Fremont?

In the Sierra Nevada and Cascade Range, find the following:—Mount Pinos (uniting the Sierra Nevada and Coast Mountains), Mount Whitney, Tyndall, Lyell, Cathedral, Castle, Lassen, Shasta (uniting the Coast Mountains and Sierra Nevada at the north). In what State are they? Where are Mounts Hood and Baker, in the Cascade Range? Mount Olympus, in the Coast Mountains?

Find the following chains which cross the great plateau:—the Blue Mountains, the Wahsatch Mountains. In what State and Territory is the Great Interior Basin? Where is the Mohave Basin, in California?

Lakes and Rivers.

The Columbia rises in the Rocky Mountains of British Columbia; describe its course in this section. In what mountains do its principal branches, Clark's Fork and Snake River, rise? In what direction does its tributary, the Willamette, flow?

The Sacramento and San Joaquin, in California, drain a valley 500 miles long: into what bay and in what direction does each flow? Describe the Colorado. Where is the Grand Cañon? The Gila?

Where does the Missouri rise? What branch issues from Yellowstone Lake? Name all the main branches of the Missouri that rise in the Rocky Mountains.

Where does the Arkansas rise? The Rio Grande and its tributary, the Pecos?

In the mountains in the north-western parts of Wyoming rise the headwaters of three great rivers—the Snake, the Yellowstone, and the Green. Describe each.

What lakes are wholly or partly in California? Where is the largest salt lake in the Great Basin? What lake flows into it? Where is Yellowstone Lake? Through what lake in Idaho does Clark's Fork flow?

Towns.

Where are the following towns?—

California.—San Francisco, Sacramento, Alameda, Stockton, Oakland, San Jose, Los Angeles, Santa Barbara, San Diego, New Almaden.

Nevada.—Virginia City, Carson City.

Utah.—Salt Lake City, Ogden, Provo.

Colorado.—Denver, Pueblo, Colorado Springs, Leadville, Trinidad.

Washington.—Olympia, Seattle, Tacoma, Walla Walla, Spokane Falls.

Oregon.—Portland, Salem.

Montana.—Helena, Butte City.

Alaska.—Sitka, Juneau.

Arizona.—Tucson, Prescott, Phoenix.

Idaho.—Boisé City.

New Mexico.—Santa Fe, Albuquerque.

Wyoming.—Cheyenne, Laramie.

Miscellaneous.

What change in climate would you find in crossing this section from south to north? From west to east? What winds cool the coast in summer? What mountains shut off these cool winds from the interior? What parts of this section are intensely cold in winter? Which is hotter in summer: Tucson, or Helena? Why? Sacramento, or San Francisco? Why? Why has not Sitka colder winters?

By what route would a San Francisco merchant ship a cargo of fruit to New York? This railroad is called the Central Pacific, from San Francisco to Ogden; thence to Omaha it is called the Union Pacific: where is Ogden? On which section is Cheyenne? How does a Denver merchant go to St. Louis?

How could a traveler go from Chicago to Great Salt Lake? Thence to San Francisco? Thence to Los Angeles? Thence to Arizona? Could he go to New Mexico by rail? How would a coal-merchant at Seattle ship coal to San Francisco? How would a San Francisco merchant send wheat to England? Why not by the Panama route? Why not by rail? Why is not fruit sent around Cape Horn?

COMMERCE OF THE UNITED STATES.

COMMERCE is carried on in all parts of the Union. The towns of the interior send their productions to the great cities on the coast, which send back home manufactures and foreign commodities.

The foreign commerce is, therefore, carried on by the sea-port towns, or by towns near the sea. The commerce that is carried on by vessels between different ports of the country is called the *coasting*, or *coastwise*, trade.

All the interior commercial towns are situated upon navigable rivers or lakes or upon railways and canals, communicating with the principal sea-ports. There are nearly as many miles of railway in the United States as in all the rest of the world.

If quick despatch is not required, water-routes are preferred to railways, because they are cheaper, especially for very heavy or bulky merchandise.

2. Our great staples, which are exchanged among different parts of the country and are sent abroad, are the productions of our leading industries—agriculture and grazing, mining, manufacturing, and lumbering.

Agriculture.—The most important products of the United States are grain, grass, cotton, rice, sugar, tobacco, fruits, and vegetables for the table.

Most of our grain and hay is produced in the North, while the cultivation of cotton, rice, and sugarcane is confined to the South.

Tobacco is raised chiefly in a middle belt of land extending from the Atlantic to the Mississippi River, and including Virginia and North Carolina, Kentucky and Tennessee, with parts of adjoining States.

Grazing is an important industry in the Middle Atlantic and Central States, in the Pacific States and Territories, and in Texas. It is the principal occupation on the Great Plains, lying east of the Rocky Mountains.

The Central States supply fresh and salt meat. Dairy products are most abundant in the Middle Atlantic and in the East Central States. Wool is an important product in all the grazing districts.

Mining.—Coal, iron, building-stones, and other valuable minerals, are distributed throughout the country.

In the production of coal and iron Pennsylvania leads all the other States, though much of the iron-ore used in her furnaces is supplied by the Central States, in which section coal is also abundant. Lead comes chiefly from the Central States, copper from Michigan and Montana, and gold and silver from the Pacific States and Territories.

Manufacturing is most important in New England, in the Middle Atlantic States, and in Ohio.

Lumbering.—The eastern half of the country still contains immense forests of valuable trees, both evergreen and deciduous, and on the Pacific Coast there are great tracts of magnificent cedars and pines. But the West is, in general, scantily supplied with timber.

Lumbering is a leading industry in Michigan, Wisconsin, and Minnesota; in Northern New England; in the Southern Atlantic States; and on the Pacific Coast.



3. Distribution of the Great Staples.—For foreign or domestic commerce each section supplies its own leading products:

New England, manufactured goods.

Middle Atlantic States, manufactures, coal, iron, and petroleum.

Southern States, cotton, sugar, rice, and tobacco.

Central States, breadstuffs and meat, lumber, copper, and iron ore.

Pacific States and Territories, gold, silver, and cattle; from the Pacific Coast, lumber and wheat.

4. Exports.—Our principal foreign exports are grain, flour, and pork from the Northern ports, and from Southern port cotton, which is sent chiefly to England.

Among the minor exports are our manufactures which are sent to England and to other countries.

5. Imports.—Our chief imports are silks, woollens, and linens, tea, coffee, and sugar.

More than one-half of our foreign trade is carried on by way of the port of New York.



Questions.—Is the commerce of the interior towns foreign or domestic? Where is the foreign commerce carried on? Name four leading commercial cities of the Atlantic coast. The principal city in the Gulf States. On the Pacific Coast.

How are the interior commercial cities situated? What country is best supplied with railroads? Would a Portland merchant be likely to send hay to Charleston by rail or by water? What name is given to the water-traffic between these two ports?

Name our leading industries. Principal vegetable products. Where is most of the grain produced?

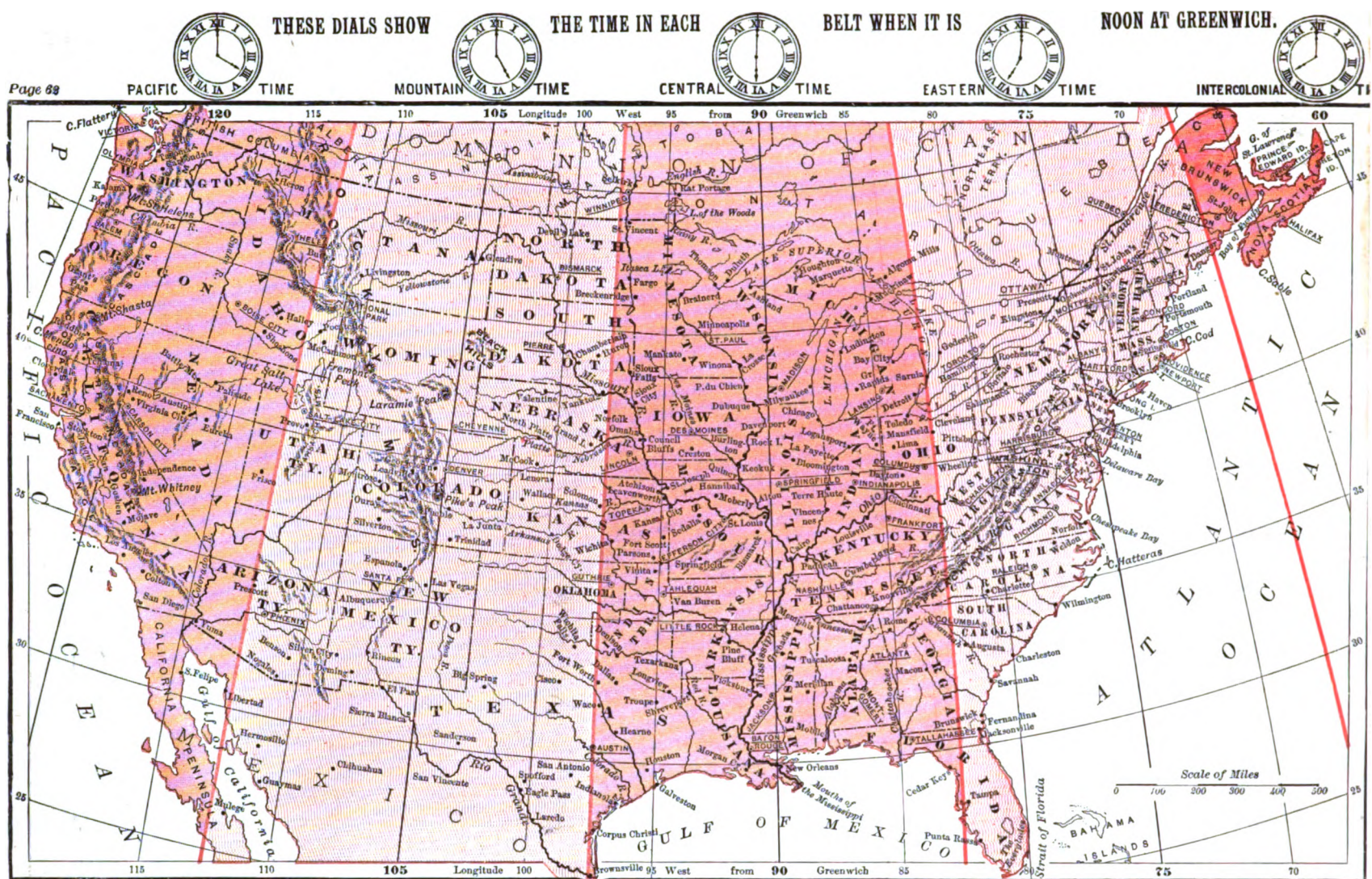
Hay? Cotton? Sugar? Rice? Tobacco? Where is grazing principally carried on? Which States supply most of the meat? Dairy products? Wool? What State produces most coal and iron? Where else are they obtained? Lead and copper? Gold and silver? Name the principal manufacturing districts.

Which half of our country is more heavily wooded—the eastern, or the western? Where, in the western half, will you find great forests? In what part of the Central States? Of New England? Of the Southern States? Where are naval stores produced? [See Chapter on Southern States.]

Name the leading commercial products of each section. The principal foreign exports from Northern ports. From Southern. The chief imports.

What States and towns would you pass in going by water from Pittsburgh to New Orleans? Send by rail a load of oranges from Jacksonville (Fla.) to New York; what States would you cross? What rivers?

Lumber is sometimes shipped directly from Michigan to Europe; follow the route from Detroit to London. Send copper by water from Lake Superior to Buffalo; describe the route. What States would you cross in going by rail from Boston to Chicago?



STANDARD TIME.

1. We have seen that the earth turns upon its axis, from west to east, once in 24 hours, and that this motion causes the alternation of day and night.

2. By means of this rotation, places upon the surface of the earth come daily in sight of the sun, or, in other words, have their **sunrise**.

When, in the course of the daily motion, a place is (in ordinary language) *directly under the sun*, it is **noon** at that place and at all other places on the same meridian. Finally, each place passes out of sight of the sun, or, in other words, has its **sunset**.

3. It is really the motion of the earth that produces these changes, yet we usually speak of the *sun as rising in the morning, crossing the meridian at noon, and going down in the evening*; because it is the sun that appears to move.

4. The earth turns from west to east; hence, when it is noon at any place, it is past noon at places east of it, and before noon at places west of it.

Thus, Pekin has its noon before Constantinople; Constantinople, before London; London, before New York; and New York, before San Francisco.

5. As the earth makes one rotation of 360° in 24 hours, in 1 hour it will move 15°; and if a place is 15° east of another, it will have its sunrise, its noon, and its sunset 1 hour sooner than the other; if it is 30° east of the other, it will have its noon 2 hours sooner; if 55° east, 3½ hours sooner, and so on.

6. St. Petersburg is 30° east of Greenwich; therefore, when it is noon at Greenwich it is 2 hours *past* noon (2 P. M.) in St. Petersburg. In Philadelphia, 75° west of Greenwich, it is 5 hours *before* noon (7 A. M.); and in San Francisco, 122½° west of Greenwich, it is 8 hours and 10 minutes *before* noon (3.50 A. M.).

7. We find, therefore, that each place has its own time, different from that of places east or west of it. This is called its **local** or **astronomical time**.

The difference in local time between two places can be easily ascertained if their difference in longitude is known; 15°, east or west, make a difference of 1 hour, and 1° makes a difference of ¼ of 1 hour, which equals 4 minutes.

8. On the great lines of railway which cross our country and Europe from east to west, this difference in time has been the source of great confusion and annoyance to travelers and to men employed upon the roads; moreover, it is sometimes led to fatal accidents; for watches set by the clocks in one place will be "too slow" in places east of it, and "too fast" in places west of it.

It was therefore decided by the railroad companies of the United States and Canada to adopt a new plan, and instead of running their trains, as heretofore,

by the local time at their principal stations, to have but one **standard time** for each 15° of longitude, making **only five standards** of time necessary for the whole extent of our country from east to west.

10. By this new system, called the **Standard Time System**, the United States and Canada are divided into five sections, or **Time Belts**; the **Intercolonial**, the **Eastern**, the **Central**, the **Mountain**, and the **Pacific**. Each of these is 15° wide; that is, it extends through 15° of longitude, 7½° of which are east and 7½° west of the meridian adopted as the central line of the belt.

11. The central line of the **Intercolonial Belt** is the meridian 60° west of Greenwich; of the **Eastern Belt**, the meridian 75° west; of the **Central Belt**, the meridian 90° west; of the **Mountain Belt**, the meridian 105° west; and of the **Pacific Belt**, the meridian 120° west. According to the new System, all places in each belt, disregarding their own local time, adopt the **Standard Time**, which is the local time of the central meridian of their particular belt.

12. Since 15° of longitude make 1 hour's difference in time, 60° make a difference of 4 hours; 75°, a difference of 5 hours; 90°, a difference of 6 hours, etc. Hence, when it is noon at Greenwich, the **Standard Time** at all places in the **Intercolonial Belt** is 4 hours before noon, or 8 A. M.; at all places in the **Eastern Belt**, 7 A. M.; in the **Central**, 6 A. M.; in the **Mountain**, 5 A. M.; in the **Pacific**, 4 A. M.; and the clocks which keep **Standard Time** correctly all strike at the same instant, each the hour of its own time-belt.

Between the hours, the *minute* hands of such clocks point to the same place on the clock dials. When it is 25 minutes past the hour in one place, it is 25 minutes past some hour in every other, and so on.

13. **Standard Time** is the same as local time at all places on the central meridian of each belt. It varies most from local time at the boundaries of the belts, where the difference is 30 minutes.

14. This change to **Standard Time** was proposed in 1878 by Prof. Abbe of the Signal Service at Washington. The present plan was presented to the International Congress at Liverpool, in 1882, by Pres. Barnard, of Columbia College, New York. It was adopted by the Railway Time Convention in Chicago in Oct., 1883, and put into operation upon the railroads of the United States and Canada, Nov. 18, 1883. Upon the same day many cities and towns set their clocks to conform to it, and nearly all places in the country have since adopted it.

Some of the railroads which have important stations just beyond the limit of a belt, do not change their time until those stations are reached.

THE BRITISH PROVINCES.

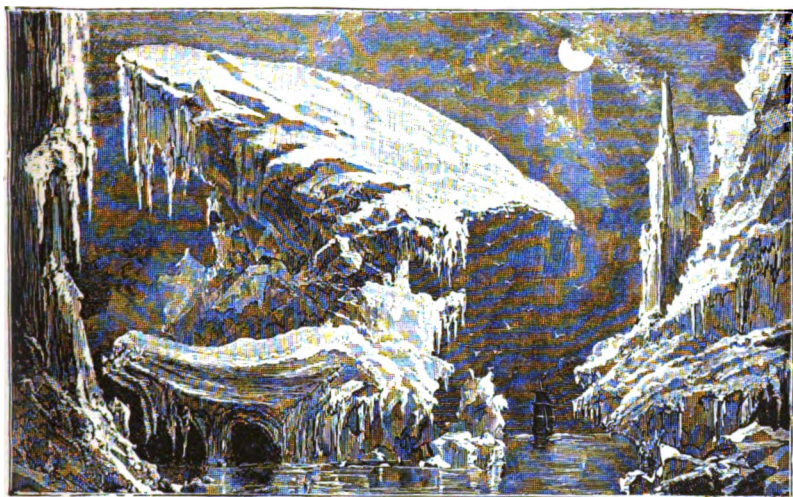
THE British Provinces occupy all the northern part of North America except Greenland, Iceland, and Alaska. They formerly consisted of eight independent provinces, and the extensive region called the North-west Territory. All of these, except Newfoundland, are now united under the general name of Dominion of Canada.

2. Surface.—Most of the country east of the Rocky Mountains is a part of the Great Central Plain, and is generally level.

The Appalachian Mountain-System extends into Canada, and terminates in low hills on the Gulf of St. Lawrence. A gradual swell of ground, called **The Height of Land**, separates the Basin of the St. Lawrence from that of Hudson Bay.

3. Rivers and Lakes.—The River St. Lawrence drains the waters of the five great lakes—Superior, Michigan, Huron, Erie, and Ontario. They are supposed to contain more than one-fourth the fresh water upon the globe.

The other rivers and lakes are large and numerous. The Saskatchewan River and its branches are navigable for nearly 2000 miles.



ICEBERGS OFF THE COAST OF LABRADOR.

The Basin of the St. Lawrence is famous for the grandeur and beauty of its natural scenery. Niagara Falls, the Thousand Isles and Rapids of the St. Lawrence, the Falls of Montmorenci (near Quebec), and the grand scenery of the Saguenay River, are the admiration of thousands of tourists.

The St. Lawrence and the Lakes form the great natural highway of the country. By means of canals, they have been made navigable throughout their entire length. In winter, however, the water-communication is frozen up.

The river admits ships from the Gulf to Montreal. Between that point and Lake Ontario there are rapids. These are avoided, in *ascending* the river, by canals on the left bank; but the *downward* passage, though perilous, is made by the river itself. Lake Ontario is also connected with the Ottawa River by the Rideau Canal.

The Falls of Niagara are avoided by the Welland Canal, which connects Lakes Erie and Ontario. The Falls in the River St. Mary are the only other natural obstruction, and are passed in a ship canal.

4. Climate.—The northern portions are intensely cold; the southern are like the adjoining parts of the United States in climate and vegetation, but the climate is subject to great extremes.

The summers in the South are very hot, while the winters are long and exceedingly cold. The interior has a dry and clear atmosphere, but the coast is often visited by thick fogs. In those districts which border upon the sea or the great lakes, the winters are much milder, and the heat of summer is less intense.

Questions.—Where are the British Provinces situated? Under what government are all of them except Newfoundland united? Describe the surface of the country. The mountain systems. What lakes are drained by the St. Lawrence? For what is the Basin of the St. Lawrence famous? How far is the river navigable for ships? What are the obstacles to navigation above Montreal? How are they overcome? What obstacle is there to the winter navigation of the St. Lawrence?

5. Government.—The legislature of the Dominion consists of a Senate appointed by the Governor-General, and a House of Commons elected by the people. The sovereign appoints the Governor-General, who is also governor of all British America.

Each province has also its separate legislature elected by the people, and a Lieutenant-Governor appointed by the Governor-General.

THE DOMINION OF CANADA.

6. The Dominion of Canada comprises the provinces of Quebec, Ontario, New Brunswick, Nova Scotia, Manitoba, British Columbia, and Prince Edward Island. In addition to these are the districts of Keewatin, Assiniboia, Saskatchewan, Alberta, and Athabasca; and the North-east and North-west Territories.

7. QUEBEC.—Quebec, formerly called Canada East, contains many descendants of the early French settlers. They speak the French language, are a people of industrious habits, and maintain the politeness and gayety of their race.

This section was first settled by the French, who built Quebec, Montreal, and other towns in the lower part of the province. In the years 1759 and 1760 it was conquered by the British.

8. ONTARIO.—Ontario, formerly called Canada West, has been settled chiefly since the American Revolution. The inhabitants are principally of British origin, and profess the Protestant religion; while in Quebec, the majority of the people are Catholics.

9. Productions.—Besides immense wealth in forests, these provinces have the same vegetable productions as the neighboring States of our own country: grain, hemp, flax, and potatoes.

Toward the mouth of the St. Lawrence the climate is too severe and the land too poor to admit of much cultivation; but in the south-western districts the soil is very rich, and produces great crops of wheat and other grains.

10. Towns.—The principal towns of the province of Quebec are Quebec and Montreal; of the province of Ontario, Toronto, Hamilton, Kingston, Ottawa, and London.

Ottawa, the capital of the Dominion, contains a magnificent Parliament House. This city is the residence of the Governor-General, and the place where the Dominion Parliament meets.

Quebec, the capital of the province of Quebec, is the oldest city in the Dominion, and consists of an upper and a lower town. The upper town is built upon a bold promontory which rises abruptly from the river. It is the only walled town in America, and is one of the strongest fortresses in the world. The lower town lies at the foot of this steep rock, and is the seat of commerce.

Montreal, the largest city of British America, is built upon the island of Montreal in the River St. Lawrence. Toronto is the capital and largest city of Ontario.

11. NEW BRUNSWICK.—New Brunswick is north-east of the United States. Its shores are washed by the Gulf of St. Lawrence and the Bay of Fundy. The latter bay is remarkable for having the highest tides in the world.

The people of New Brunswick, Nova Scotia, and the other provinces bordering upon the Gulf, are extensively engaged in the fisheries, which form one of their principal sources of wealth.

12. Towns.—Fredericton, the capital, is on the River St. John, 80 miles from its mouth. The City of St. John, at the mouth of the river, is the largest and most important town.

Questions.—What is the climate of the Provinces? Describe the Government. Of what does the Dominion of Canada consist? What is the character of the descendants of the French settlers? Where are they found: in Quebec, or Ontario? By whom was Ontario principally settled? Name some of the productions of Canada. Which are the principal towns? Name the capital. Describe Quebec. Where is Montreal? Where is New Brunswick? What is said of the Bay of Fundy?

Questions on the Map and Text.

Which of the provinces belong to the mainland of North America? Which of them are islands? Which one is a peninsula? Name the largest of the provinces. The smallest.

What does the Dominion of Canada comprise? What country joins the Dominion of Canada on the south? Name the four States bordering on Quebec. What rivers and lakes are between Ontario and New York? What lake separates Ontario from Ohio? What three lakes are between Ontario and Michigan?

What mountains form part of the southern boundary of Quebec? In going from the mouth of the Saguenay River in a direct course to Hudson Bay, what elevation would you cross? What forms the divide between the rivers of the Hudson Bay and St. Lawrence Systems?

Which is the principal river of Canada? In what direction, and into what gulf, does it flow? What is its principal tributary on the north? What other rivers flow into it from the north? What rivers flow into it from the south?

What great lakes does the St. Lawrence drain? Through what river do the waters of Lake Champlain flow into the St. Lawrence? From what lake does the Saguenay River flow?

What are the obstacles to the navigation of the St. Lawrence in winter? Are there any impediments to its summer navigation? Can a steamboat descend the St. Lawrence from Lake Ontario? Is there any peril in the descent of the river? Why cannot steamboats ascend the river? How do they return?

13. NOVA SCOTIA and CAPE BRETON ISLAND.—These form together a single province. The coast contains a great number of fine harbors, promoting the extensive commerce and fisheries, which form the chief business of the people.

14. Towns.—Halifax, the capital, has a fine harbor, and is the principal British naval station in this part of the world.

The chief exports of Nova Scotia and New Brunswick are lumber, fish, coal, grindstones, gypsum (or plaster), grain, potatoes, and hay.

15. PRINCE EDWARD ISLAND was first settled by the French, but was afterwards ceded to Great Britain.

Like all the other regions in or upon the Gulf, this province has valuable fisheries. Farming and grazing, however, form the chief occupation of the people. Charlottetown is the capital.

16. BRITISH COLUMBIA.—The coast region is densely wooded, and has a moist and rather mild climate. The plateau east of the Cascade Range is dry, and better for grazing than for agriculture.

The leading exports are gold, coal, furs, lumber, and fish. Fraser River is the principal stream, upon whose banks, and those of its tributaries, gold abounds.

Vancouver and Queen Charlotte Islands are a part of British Columbia.

17. Towns.—Victoria, the capital and principal town, is on Vancouver Island. New Westminster is next in importance.

18. MANITOBA is situated in the Red River valley, and is nearly in the centre of North America. The surface consists mostly of level prairie land, with but little timber.

The soil is very fertile, and produces large crops, especially of wheat. The climate is cold and dry, and the population is rapidly increasing. Winnipeg is the capital.

19. DISTRICTS AND TERRITORIES.—The five districts which have recently been organized and the three territories comprise all of British America not included in the eight provinces.

They have few towns, and are inhabited chiefly by Indians, Eskimos, and fur traders. Battleford is the principal town. [NOTE.—For boundaries and general description of British Columbia, Manitoba, and the Territories, see pages 25 and 26.]

NEWFOUNDLAND.

20. The Surface is generally rocky and barren. The coast is bold, and indented by deep inlets, which form many excellent harbors. St. John's is the capital, and the only town of any note.

21. Climate.—The winters are very cold, but the summers are hot. Dense fogs hang over the coast during a large part of the year.

22. Productions.—The fisheries form almost the sole wealth of Newfoundland. The exports are fish, oil, and seal-skins.

The fish are taken along the shores of the island, and upon shallow places in the sea, called the Banks of Newfoundland. The Grand Bank, which lies farthest to the eastward, is more than 600 miles long, and 250 miles broad.

Labrador.—The coast of Labrador is attached to the Government of Newfoundland. Its fisheries are very extensive and valuable.

THE FRENCH ISLANDS.

23. The small islands of St. Pierre and Miquelon, south of Newfoundland, belong to France, and serve for fishing stations.

These islands, a part of Guiana (in South America), and a few small islands among the West Indies, are all that remain to France of the immense territory which she once possessed in America.

Questions.—What is said of Nova Scotia and Cape Breton Island? What is the capital? What are the chief exports? By whom was Prince Edward Island first settled? What is the chief occupation of the people? Describe British Columbia. Name the capital. Describe Manitoba. The territories. Describe Newfoundland. Name the climate and exports. What is said of the French Islands?

Does Lake Ontario flow into Lake Erie, or Lake Erie into Ontario? Why cannot steamboats go by the Niagara River from one lake to the other? Vessels frequently pass from Lake Erie into Lake Ontario: how is it done?

What lakes are connected by the River St. Mary? What obstructions are there to the navigation of this river? How, then, do vessels pass from one lake to the other?

Through what two rivers and lake must a vessel sail, to go from Lake Erie to Lake Huron? Where is Georgian Bay? Of what lake is it a part?

What is the capital of Canada? Where is Quebec situated? Montreal? Kingston? On what river is London? Across what lake would you sail to go from Port Stanley to Cleveland? From Kingston to Oswego? Toronto to Rochester?

On what waters would a vessel sail, to go from Hamilton to Quebec? From Quebec to Halifax? From Halifax to St. John? From St. John to Boston?

What river separates New Brunswick from Quebec? What river flows through the province into the Bay of Fundy? What bay lies between Nova Scotia and New Brunswick? For what is this bay remarkable? What two bays on the eastern coast of New Brunswick? What strait between Nova Scotia and Cape Breton Island? Between Nova Scotia and Prince Edward Island?

What is the capital of New Brunswick? Where is it situated? In what province is St. John? St. John's? On what waters would you sail, to go from St. John to St. John's? Where would you find the highest tides: at St. John, or at Halifax? Where is Halifax?

Where is Sable Island? (The only inhabitants of this island are a few persons employed by the Government to succor wrecked vessels.) Where is Anticosti Island? (This island belongs to Quebec; its only inhabitants are two juncos—keepers of light-houses upon the coast.)

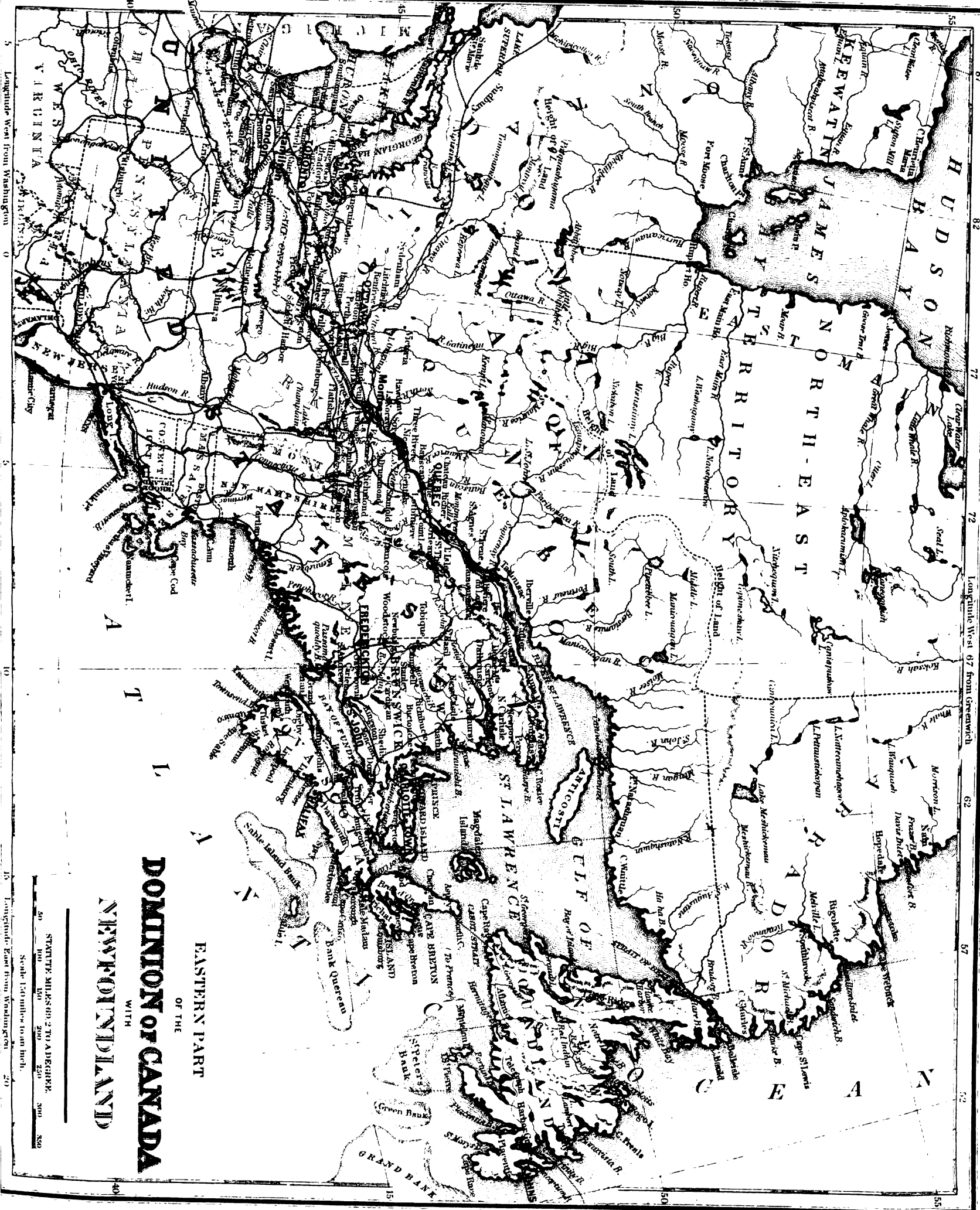
What two small islands are south of Newfoundland? To what country do they belong? Where are the Grand Banks? For what purpose do vessels resort there? To which of the United States do most of the American vessels, engaged in the fisheries, belong? Which of the provinces are most engaged in the fisheries?

(See Map of North America.) Which one of the British Provinces lies on the Pacific Ocean? What districts and territory lie between this and the other provinces? What islands are west of this province? What river flows through British Columbia? What is found upon its banks? What is the probable occupation of most of the inhabitants.

Between what degrees of latitude are most of the British Provinces situated? What part of the United States is in the same latitude? Do the climate and productions, then, of this part of the United States resemble those of the Provinces?

Mention some of the most important productions of Canada. Why are not cotton, rice, and the sugar-cane cultivated there?

Spell the following words:—Canada, Newfoundland, Erie, Ontario, St. Lawrence, Saguenay, Montmorency, Montreal, Quebec, Ottawa, Cape Breton, St. Pierre, Miquelon, Toronto, Richelieu, Richibucto, Belle Isle, Anticosti. Give the meaning of Niagara.



DOMINION OF CANADA

NEWFOUNDLAND

EASTERN PART

OF THE

WITH

STATUTE MILES 0 2 TO A DEGREE

Scale 1 inch to 100 miles

MEXICO, CENTRAL AMERICA, AND THE WEST INDIES.

THESE countries are included within Spanish America, or that part of the American Continent which was first settled by the Spaniards, and is still occupied by their descendants.

[NOTE.—The extent of Spanish America, and the character of the people, are described in the *History of the United States*, page 31.]

2. The greater part of Spanish America lies within or near the Torrid Zone. All that portion which borders upon the Pacific contains mountains and table-lands, and therefore exhibits an extraordinary variety of vegetable products. The mineral wealth, particularly in gold and silver, is also very great.

Yet such is the indolence of the people, that agriculture is almost wholly neglected, and the mines are imperfectly worked. The rearing of live-stock better suits the idle habits of the people, and many horned cattle, horses, and mules are raised. The cattle are slaughtered principally for their hides, horns, and tallow.

3. The only portions of Spanish America now in possession of the mother country are Cuba and Porto Rico. The other colonies threw off the yoke in the first quarter of the present century, and established themselves as independent republics.

Most of them, however, are wretchedly governed; one revolution following another, in endless succession.

4. Mexico, Central America, and the Isthmus of Panama, occupy the narrowest portion of the Western Continent, and afford convenient routes between the Atlantic and Pacific Oceans.

Three routes across this section were originally projected: one by the Isthmus of Tehuantepec, in Mexico; another by the way of the river San Juan and Lake Nicaragua, in Central America; the third across the Isthmus of Panama. The latter was, for many years, the principal channel of communication between the oceans by means of the Panama Railroad.

The great railroads to the Pacific coast which have been constructed in late years have, however, diverted much of the travel as well as commerce from this route. A ship canal, across the Isthmus of Panama, about 46 miles in length has been projected and is now in process of construction by DeLesseps, the French engineer and successful projector of the Suez Canal.

5. **Inhabitants.**—The inhabitants of Spanish America are whites, blacks, Indians, and the mixed races. By far the greater part of the population of Mexico and Central America belong to the Indian and mixed races.

MEXICO.

6. **Coast.**—Upon the Gulf of Mexico (as we have seen in the United States), the coast is flat and sandy, and therefore deficient in good harbors. The shores of the Pacific, however, are more abrupt, and abound with fine harbors, which admit ships of the largest size.

7. **Surface.**—The interior consists of table-lands, from 4000 to 9000 feet high. They rise abruptly from the Pacific coast, but there is a considerable interval of low land between them and the Gulf of Mexico.

From the Gulf, the table-lands were formerly only accessible by a few carriage-roads: one by Jalapa, from Vera Cruz, and another by Saltillo, from Matamoras and Monterey, were made lines of attack by the United States Army in the war between the two countries. Railroads now connect the coast with the interior.

Questions.—What do you understand by Spanish America? Within what zone does it principally lie? What, then, is its climate? What are some of the productions? What part of Spanish America is still in possession of Spain? What three routes were projected from the Atlantic to the Pacific? What is said of that across the Isthmus of Panama? Who inhabit this country?

The Sierra Madre crosses the table-land from north to south, and forms a continuation of the Rocky Mountains. The highest mountains in Mexico are a line of single peaks (many of them volcanoes), which cross the southern part of the plateau from east to west.

8. **Climate.**—The rainy season continues from May till October; the dry season from October to May. Like all tropical countries which contain high and low lands, Mexico exhibits a great variety of climate.

In ascending from the coast to the surface of the plateau, we find three regions in succession:—the hot, swampy, and pestilential lowlands; the temperate regions, which enjoy a healthful and delightful climate; and the cold, desolate plains above.

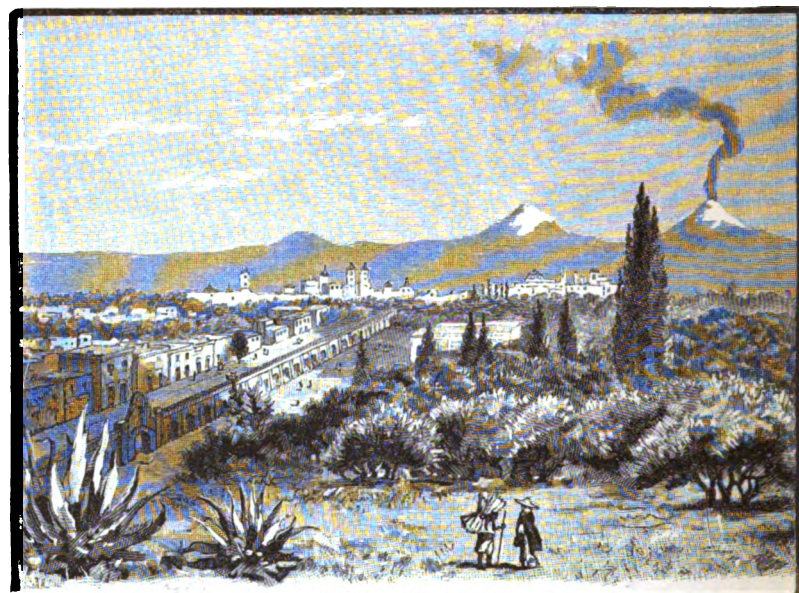
9. **Productions.**—The vegetable productions vary with the climate—passing through gradual changes, from the lowlands to the surface of the plateau.

Thus, Mexico possesses, in the same latitude, the vegetation of all the zones. The oak and pine are found here, as well as the mahogany, ebony, and palm. Wheat and barley are produced in the cooler regions; and cotton, tobacco, the sugar-cane, and many fruits and spices, in the plains and valleys below. Indian corn grows both on the high and low lands.

The *Maquey* plant furnishes an intoxicating drink, called *pulque*, of which the Mexicans consume a great quantity. One plant often yields 150 gallons.

The mines of Mexico once yielded immense quantities of gold and silver, but they are now less productive. Iron, copper, and other useful metals have since been discovered, and are mined to a limited extent.

10. **Towns.**—Mexico, the capital, is situated upon a table-land, 7000 feet above the sea. The capture of this city by General Scott, in 1847, was the closing event of the war with the United States.



VIEW OF THE CITY OF MEXICO.

[This view represents, in the foreground, one of the magnificent aqueducts which supply the city with water. On the left of the centre is the Cathedral, and on the right the two convents of San Augustine and San Francisco. In the distance are represented the volcanoes of Popocatepetl ("Smoking mountain") and Iztaccihuatl ("White Lady").]

Most of the towns in the interior are situated on the table-lands, where the climate is much more healthful than on the swampy regions of the coast. Guanaxuato and Zacatecas, on the highlands, are rich in mines of gold and silver.

Vera Cruz and Tampico are the principal ports on the Gulf of Mexico; Acapulco, San Blas, Mazatlan, and Guaymas, are the principal ones on the Pacific coast.

Questions.—What is the character of the coast of the Gulf of Mexico? Which is the principal mountain-chain? Describe the climate. Name some of the productions. Are they of more than one climate? What is *pulque*? How does the present productiveness of the mines compare with that of the past? Describe the city of Mexico. Which are the principal mining towns? Name the principal ports.

11. Commerce.—Though Mexico is so rich in natural productions, every branch of industry is neglected. Commerce is, therefore, very limited, and the exports consist of the simplest productions: gold, silver, cattle, hides, and cochineal.

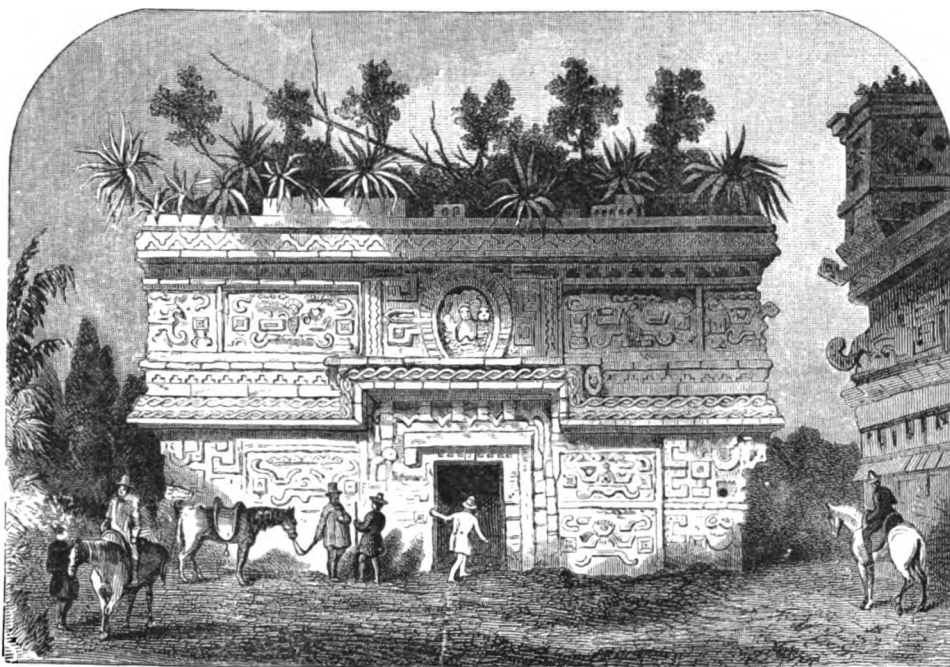
The cochineal is an insect which feeds on a species of cactus. When killed, and dried in the sun, it yields a brilliant crimson dye.

12. History.—Fernando Cortez, a Spanish adventurer, conquered the country in 1521.

He found there an extensive kingdom, with regular laws, and with cities, temples, public roads, and many of the arts of civilized life. After the conquest, the cruelty of the Spaniards drove the Indians back into a state of barbarism.

In 1821, Mexico became independent of Spain, and established first an empire, then a republican form of government. By the war with the United States, which ceased in 1848, she lost Upper California and New Mexico. Mexico now comprises twenty-seven States, two Territories, and one federal district.

13. The Peninsulas of Yucatan and Lower California are parts of Mexico but little known. The former is noted for its ruins of ancient temples and cities.



RUINS OF CHICHEN, YUCATAN.

CENTRAL AMERICA.

14. Central America comprises the five States of Guatemala, Honduras, Salvador, Nicaragua, and Costa Rica, together with the small British colony of Balize or British Honduras. In surface, climate, and productions, the country bears a general resemblance to Mexico.

The height of the table-lands gradually decreases towards the Isthmus of Panama, where the surface is varied by a chain of low hills. Along the south-western edge of the plateau is a line of volcanoes, which form a part of the great volcanic chain on the Pacific coast of America.

15. Towns.—The largest city in Central America is New Guatemala, the capital of the State of Guatemala.

Tegucigalpa is the capital of Honduras; San Salvador, of Salvador; Managua, of Nicaragua; and San José, of Costa Rica.

WEST INDIES.

16. The West India Islands consist of three principal groups: the Greater Antilles, the Lesser Antilles, and the Bahamas.

The *Greater Antilles* consist of Cuba, Hayti, Jamaica, and Porto Rico. The *Lesser Antilles* include the chain of islands which extend from Porto Rico to South America. The Antilles are mountainous, and are supposed to be the remains of a mountain-chain, which, at some remote period, connected North and South America.

The *Bahamas* are low islands, of coral formation. Guanahani, one of the Bahama Islands, was the first land, of the New World, discovered by Columbus.

17. Climate and Productions.—The climate and productions of the West Indies are tropical.

The climate is generally healthful, except in the rainy season. The islands are subject to terrific hurricanes. Sugar, molasses, rum, coffee, tobacco, mahogany, spices, and tropical fruits, form the chief exports.

18. Inhabitants.—The population of the West Indies consists principally of whites and free negroes.

About one-third of the inhabitants are white. The negroes were once all slaves, but are now free. A considerable number of Chinese, called *Coolies*, have been taken to some of the islands, to labor upon the plantations.

Questions.—What are the exports of Mexico? What is cochineal? Who first conquered Mexico? When did it become independent? For what is Yucatan noted? Where is Balize? To what country does it belong? Name the Political Divisions of Central America. The capital of each. Which is the largest city of Central America? Of what do the West India Islands consist?

19. Most of the West India Islands are in possession of European nations.

Cuba and Porto Rico belong to Spain; Jamaica, the Bahamas, and most of the Lesser Antilles, to Great Britain; Hayti is independent; and the remaining islands are owned by France, Denmark, The Netherlands, Sweden, and Venezuela.

20. *Cuba*, the "Queen of the Antilles," is the richest of Spain's possessions. It is about as large as the State of Tennessee, and nearly equal in area to all the rest of the West Indies. The extensive foreign commerce of the island is chiefly carried on through Havana and Matanzas.

21. *Jamaica* is a very beautiful and fertile island; but, like the rest of the British West Indies, the amount of her productions and commerce has of late years greatly decreased. Kingston is the largest town.

22. *Hayti* embraces two distinct States: the Republic of Dominica or San Domingo, and the Republic of Hayti.

The island once belonged to France and Spain. In 1791, the slaves in the western, or French division, rose against their masters, and, after a bloody and cruel war, succeeded in establishing themselves, first as an empire, then as an independent republic.

In 1849, Soulouque (who was then President) proclaimed himself Emperor, with the title of Faustin I. After a reign of ten years, Soulouque was deposed, and, in 1859, a republican form of government was again adopted.

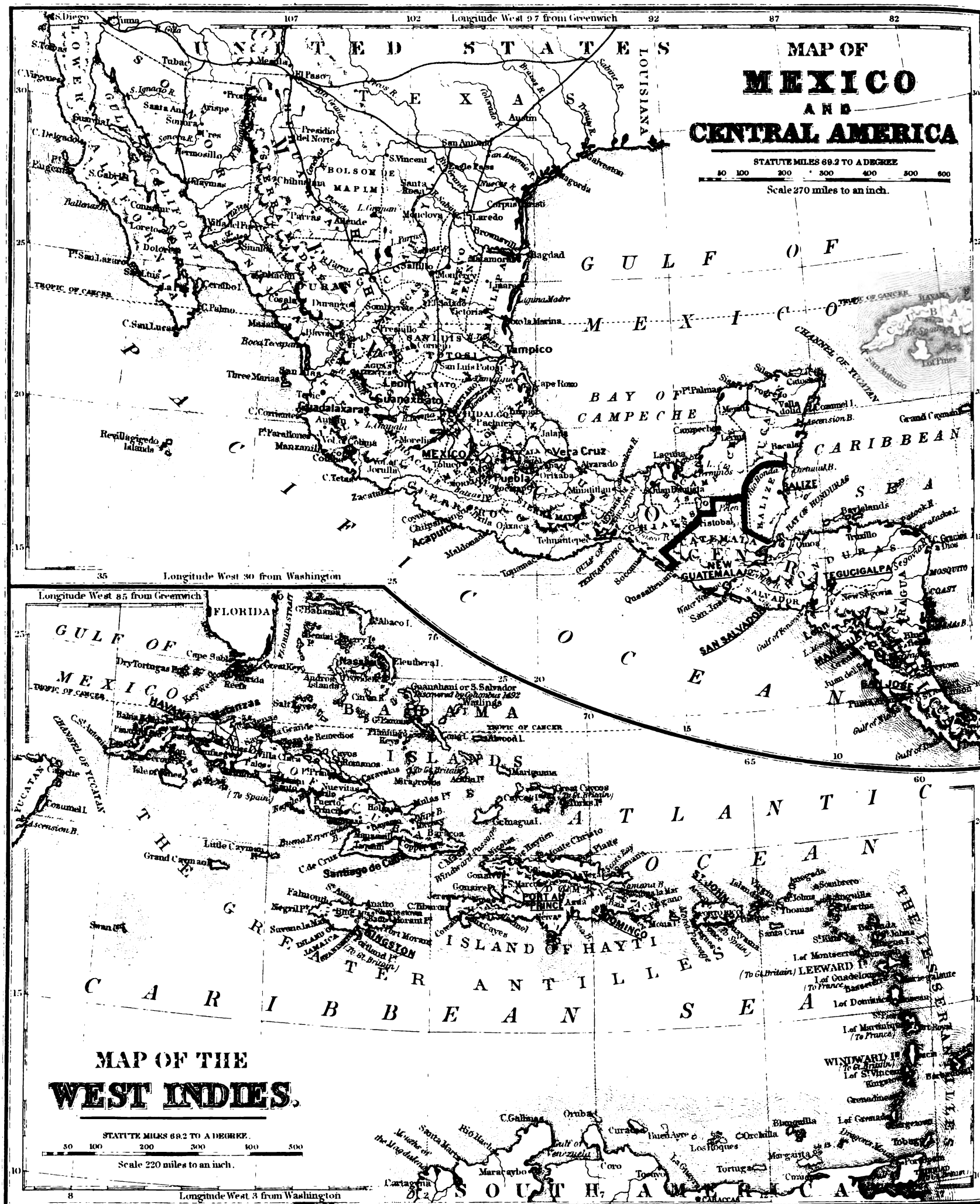
In 1821, the eastern division revolted from Spain, and formed a republican government.

The island is noted for its beautiful scenery and for the fertility of its soil, which is capable of producing every variety of tropical vegetation.

23. The *Bermuda Islands* are situated in the Atlantic Ocean, north of the West Indies. They belong to Great Britain.

There are about 400 of these islands. Most of them are so small and barren that they have neither name nor inhabitants. [For location, see map of North America.]

Questions.—Which are the Greater Antilles? The Lesser Antilles? Are they level or mountainous? Are the Bahama Islands high or low lands? Name some of the productions of the West Indies. In whose possession are most of the islands? Which belong to Spain? Great Britain? Which is independent? Where are the Bermuda Islands? To whom do they belong?



QUESTIONS ON THE MAP OF MEXICO, CENTRAL AMERICA, AND THE WEST INDIES.

Statistical.

Which of these divisions are parts of the mainland of North America? Which one consists entirely of islands? How many States of the size of Missouri would Mexico make? What Southern State has about the same area as Hayti? Which is the larger: Cuba, or Kentucky? Jamaica, or Connecticut?

MEXICO AND CENTRAL AMERICA.

Outline.

Between what gulf and ocean is Mexico? What country bounds it on the north? What gulf indents its western coast? Name the peninsula between this gulf and the Pacific Ocean. Between what two bays is the peninsula of Yucatan?

Between what sea and ocean is Central America? What channel separates Yucatan from Cuba? Where is the Mosquito Coast? Between what two bodies of water is the Isthmus of Tehuantepec? Is it in Mexico or Central America?

What cape at the southern extremity of the peninsula of California? What one on the eastern coast? Where is Cape Gracioso Dios? Cape Roxo? Cape Tetaz? Cape Corrientes? Which coast of these countries has the better harbors: the Pacific, or that of the Gulf of Mexico and Caribbean Sea?

Surface.

Of what does the interior of Mexico and Central America consist? What is the general height of these table-lands? Does the elevation increase, or diminish, towards the Isthmus of Panama? On which coast do the table-lands rise most abruptly from the sea?

Near which coast is there most low land? How was the Mexican plateau formerly accessible from the Gulf of Mexico? What use was made of these roads by the United States army during the war between the two countries? What mountain-chain crosses the Mexican plateau from north to south? Where is the volcano of Popocatepetl? Jorullo? Where are the volcanoes of Central America?

Lakes and Rivers.

What river partly separates Mexico from the United States? What large river of the United States flows into the head of the Gulf of California? What large lake in Central America? What river flows from it into the Caribbean Sea? What lake in Mexico near the parallel of 20°?

Climate and Productions.

In what zones is Mexico? In what zone is Central America? Why do these countries exhibit such a variety of climate and vegetation?

In what part of these countries is the climate hot and unhealthy? What are the productions of the low lands? Describe the climate of the more elevated regions. Name the productions raised there.

Does Indian corn grow on the high or low lands? Where do the fruits and spices grow? Wheat and barley? The sugar-cane? What intoxicating drink is made in Mexico? What dye from the cochineal insect?

What precious metals are found in Mexico and Central America? How does the present productiveness of the mines compare with that of the past? What useful minerals are found in Mexico?

Political Divisions and Towns.

To what division do the peninsulas of California and Yucatan belong? Name the five States of Central America. Which is the most northern of these States? The most southern? The most eastern? Where is the Balize? To what country does it belong?

Why are the towns of the interior of Mexico more healthful than those on the coast? What is the capital? Name the principal seaports upon the Gulf of Mexico. Near the mouth of what river is Matamoras? What town in the United States is on the opposite bank of the river? Name some of the largest towns of the mining districts. Where is Tampico? Which is farther north: Tampico, or Vera Cruz?

Name the principal ports on the Pacific coast. Which two of them are situated on the Gulf of California? Where is the town of Balize? Where is Greytown? Of what State of Central America is San José the capital? Tegucigalpa? Managua? New Guatemala?

THE WEST INDIES.

Name the three divisions of the West India Islands. Which are the Greater Antilles? Where are the Lesser Antilles? How do the Bahama Islands differ in surface from the Antilles?

Name the bodies of water by which the West Indies are surrounded. Which group extends farthest to the north? To the east and south? What island is farthest west? Name the largest one of the West India Islands. Which is next in size?

Which of the West India Islands is independent? Which of them belong to Spain? To Great Britain? To what European and South American countries do the others belong?

In what zone are most of these islands? What, then, is the climate? Is it generally healthful? What are the principal exports? What proportion of the inhabitants are whites?

Which of the West Indies was first discovered by Columbus? In what direction is this island from Cuba? Where is Havana? Kingston? Matanzas? St. Domingo? St. John? Port-au-Prince? Where are the Bermuda Islands? To what country do they belong? What are the two divisions of the island of Hayti?

What passage between Cuba and Hayti? What one between Hayti and Porto Rico? Name three of the Leeward Islands. Name three of the Windward Islands. What does Florida Strait connect? What does it separate? In what direction from South America are the Greater Antilles? From the United States?

What cape at the western extremity of Cuba? What cape at its eastern extremity? What large island south of the western part of Cuba? What cape on the eastern coast of Hayti? What large town in eastern central Cuba? Where is Cienfuegos? Aux Cayes? Cape Haytien? In what part of Cuba are the Copper Mountains?

Cuba imports from the United States fish, butter, cheese, pork, lard, lumber, machinery, Indian corn, ice, flour, &c. Mention some of the articles the United States receives in return.

Miscellaneous.

What do you understand by Spanish America? What parts of Spanish America are now in possession of Spain? When did the other colonies become free? What is their present condition? Which do you think the more prosperous countries: those settled by the Spaniards, or by the English? What reasons can you assign for this difference?

Name the islands, two peninsulas, and divisions of the mainland, which form the principal boundaries of the Gulf of Mexico? What bay forms the southern part of this gulf? Which division of the West Indies is north of the Caribbean Sea? Which is east? What land bounds this sea on the south? On the west?

Name some articles with which you would freight a vessel at Havana for New York. What would you ship from New York in return? Between what islands would you sail, to go by the windward passage from the Caribbean Sea into the Atlantic Ocean?

Give the history of Mexico? What can you say of Yucatan and California? To which division of the West Indies does the first land discovered by Columbus belong? Is it a mountainous or a low island? What two important cities of the West Indies are very nearly on the Tropic of Cancer?

What three regions do you find in Mexico, in ascending from the coast to the surface of the plateau? Why are there so many varieties of vegetation in the same latitude? What vegetable products grow in the cooler or upland region? What in the valleys?

Which do you think is the healthier city, Vera Cruz, or Mexico? Why? Does the Gulf of Mexico or the Pacific coast present the best harbors? Why? Bound Mexico; Central America. Name the principal mountain-chains, rivers, and towns. Sketch a map of the West Indies.



SOUTH AMERICA.

PHYSICAL FEATURES.

POSITION.—South America is the southern part of the Western Continent. It is in the Torrid and South Temperate Zones.

It extends from Cape Gallinas, about 12° N., to the Strait of Magellan, 54° S. latitude, and from Cape St. Roque, 35° W., to Cape Parina, 81° W. longitude.

2. Size.—It ranks fourth in size among the Grand Divisions. Its area is nearly 7,000,000 square miles.

It is about three-fourths as large as North America, and contains nearly one-seventh of the land-surface of the globe. Its length from north to south is about 4700 miles, and its breadth from east to west is 3200 miles. It has a coast-line of about 17,000 miles.

3. Outline.—The outline is regular, no large gulfs or inland seas indenting the coast.

Like North America, it is triangular in form, with its greatest length toward the Pacific coast.

4. Surface.—The forms of relief are the *Pacific Highland*, or the *Highland of The Andes*, the *Atlantic Highlands*, and the *Great Central Plain*. There are three principal mountain-systems—the Andes, the Guiana, and the Brazilian systems.

5. The Highland of The Andes extends from the Isthmus of Panama to Cape Horn. It is a continuation of the Pacific Highland of North America.

It is of great height, the average elevation being 6000 feet. The broadest and highest section is the Plateau of Bolivia, which averages 12,000 feet in height.

6. The Atlantic Highlands are the Brazilian Highland and the Guiana Highland.

Questions.—Give the latitude and the longitude of South America. What is its area? What is said of the outline and form of South America? Name the forms of relief. The principal mountain-systems. Describe the Highland of The Andes. What constitute the Atlantic Highlands?

7. The Brazilian Highland is a broad plateau region crossed by mountain-ranges of moderate elevation approximately parallel.

It occupies nearly one-fourth of South America, and has an average elevation of 2500 feet. The loftiest peaks are in the coast ranges, and are from 5000 to 10,000 feet high.

8. The Guiana Highland is a plateau traversed by short, broad mountain-ranges of medium height. It forms the divide between the basins of the Orinoco and Amazon rivers.

Its most remarkable summit is Mount Roraima, a broad, flat-topped mountain, about 8000 feet high, surrounded by perpendicular precipices; so that it is almost impossible to ascend to the top.

9. The Great Central Plain extends eastward from the Pacific Highland to the Atlantic Ocean, except where it is interrupted by the Atlantic Highlands.

It occupies about one-half of South America, and comprises the basins of the Orinoco, the Amazon, and the La Plata. It is chiefly an alluvial region.

Its divisions are the *Llanos*, or treeless plains, of the Orinoco; the *Selvas*, or forest plains, of the Amazon; and the *Pampas*, or grassy plains, of the La Plata.

The *Llanos*, at the close of the wet season, are covered with rich grass; but in the dry season the lakes and the pools are dried up, the vegetation is withered, and hot winds sweep clouds of dust over the parched and desolate plains.

The *Selvas* are copiously watered throughout the year, and are nearly covered with forests, which are among the largest and densest in the world. The soil of the *Selvas* is exceedingly rich, and the vegetation is remarkable for its variety as well as for its luxuriance.

The *Pampas* are covered with thistles, coarse grass, and a scattered growth of trees. South of the Pampas is the unexplored region of Patagonia. This includes all the country east of the Andes and south of the River Negro.

Questions.—Describe the Brazilian Highland. The Guiana Highland. What is the extent of the Great Central Plain? What portion of South America does it occupy? What are its divisions? Describe the Llanos. The Selvas. The Pampas. What river-basins are in the Great Central Plain?

QUESTIONS ON THE MAP AND TEXT.

Position.—In what hemisphere is South America? In what zones? In what direction is it from North America? From Europe? From Asia? From Africa? What countries are crossed by the meridian of Washington? By the Equator? By the Tropic of Capricorn? How many degrees from the South Pole is Cape Horn? From the Tropic of Capricorn? How many degrees of latitude does South America include? In what country of South America is that point which has no latitude, and no longitude from Washington? When it is noon in Washington, what time is it at Cape St. Roque (35° W.)? At Santiago (71° W.)? At Cape Parina (81° W.)? What does the Strait of Magellan connect? What does it separate?

Size.—What Grand Divisions are larger than South America? How wide is it at the Equator? At the Tropic of Capricorn? How long is it from Cape Gallinas to the Strait of Magellan? (Measure by Scale.) How many degrees of the Equator does South America include? Of the Tropic of Capricorn? How many degrees of latitude does the Torrid Zone include in South America? The South Temperate Zone?

Outline.—Which is the more regular in outline—South America or North America? Locate the most northern cape. The most southern. The most eastern. The most western. Cape Frio. Cape Blanco. In what direction from the mouth of the Amazon is the mouth of the La Plata? Which countries of South America have no sea-coast? Which ocean is deeper 100 miles from the shore, on the Equator—the Atlantic or the Pacific?

Surface.—Locate the Highland of The Andes. The Atlantic Highlands. The Great Central Plain. Five volcanoes. In what countries are the Llanos? The Selvas? The Pampas? Where is the Desert of Atacama? The Despoblado region? What countries are partly in the Brazilian Highland? In the Pacific Highland? In the Guiana Highland? Locate the mountain-ranges of the Guiana Highland. Of the Brazilian Highland. What highland is between the Selvas and the Llanos? Between the Selvas and the Pampas?

Lakes and Rivers.—Name all the countries drained by the Amazon. By the La Plata. By the Orinoco. What lake is the source of the Amazon? *Ans.* Lake Reyes. Which countries of South America are not drained by any of the three great rivers? Does Lake Titicaca flow into the Desaguadero River or from it? How can you tell? Name five of the largest tributaries of the Amazon. Two of the La Plata. Two of the Orinoco.

Name three rivers not tributary to any of the three great rivers. Is Paraguay on the right bank or on the left bank of the Parana? How do you know? Trace the passage of a boat from the mouth of the Orinoco up that river and thence to the mouth of the La Plata. What country of South America has no important river within its limits? Why? In what Highlands do the tributaries of the Amazon rise? Of the Orinoco? Of the La Plata?

Climate.—Why is Quito cooler than a town on the Equator at the mouth of the Amazon? What currents affect the temperature in various regions? Why is it warmer in Rio Janeiro than on the Pacific coast in the same latitude? What winds prevail at Cape Horn, and what ocean-current flows near it? Which, then, is more difficult—to sail around Cape Horn from the Atlantic to the Pacific, or to double the cape in a contrary direction? Does the Peruvian current aid or retard the passage of a vessel from the Lobos Islands to the coast of Chili? How do you know? Locate the western rainless tract. Why is this region rainless?

Productions and Animals.—Name the most important food-plants. Medicinal plants. Metals. Precious stones. Other minerals. What minerals are found in the desert regions? (Let each scholar name a vegetable production, and tell where it is found and why it is valuable. Let the mineral productions and the animals be considered in like manner.) Name any animal of South America that is not found also in North America.



10. The *Andes* are a part of the great mountain-system of the Western Continent. With the exception of the Himalaya in Asia, they are the highest mountains in the world.

They commence in low hills on the Isthmus of Panama, and terminate in the island of Cape Horn, which is a bleak and naked rock rising 3500 feet from the sea. In Patagonia they rise abruptly from the shore; but farther north they retreat to the distance of 60 or 100 miles from the coast.

In the south they consist of a single chain; in the central part, of two chains, nearly parallel; and in the north, of three. The system is 4800 miles long, and from 30 to 400 miles wide, and it includes all the volcanoes of South America.

The region of the Andes is subject to earthquakes and volcanic eruptions. Many splendid cities have been laid in ruins by these convulsions of nature.

The table-lands of the Andes are surmounted by snow-capped summits (called *Nevados*) and smoking volcanoes. The highest peaks of the different parts of the system are Chimborazo (20,696 feet) in the north, Nevado de Sorata (23,281 feet) in the central part, and Aconcagua (23,869 feet) in the south.

The southern part of the Plateau of Bolivia is a desert called *Despoblado* ("uninhabited").

11. The *Guiana System*, including the Sierra Parima and the Acaray Mountains, comprises several ranges, extending from east to west, between the Orinoco and Amazon rivers.

These ranges have an average elevation of 3000 or 4000 feet. The highest peak is Maraguaca (8220 feet).

12. The *Brazilian System* includes all the mountains of the Brazilian Highland.

The most easterly ranges run nearly parallel to the Atlantic coast. Their average elevation is from 4000 to 6000 feet, and the loftiest peak is Mount Itatiaia Assu (*E-tah-tee-yah'yah As'soo*), 10,040 feet high.

13. Drainage.—The Andes are the great condensers of moisture and the reservoirs for the supply of rivers, and among the streams that flow from their summit to the Atlantic are some of the longest and largest rivers in the world.

The most important rivers of South America are the Amazon, the La Plata, and the Orinoco, all of which belong to the Atlantic System.

Questions.—What are the three mountain-systems? Give the length and the breadth of the Andes System. Name its highest peaks. Which mountains are higher than the Andes? Of what system in North America are the Andes a continuation? Describe the Guiana System. The Brazilian System. Name the three great rivers of South America. In what mountain-system do they rise? Into what ocean do they flow?

So nearly level is the Great Plain of South America that, in the rainy season, some of the tributaries of the three great rivers rise higher than their divide, and the waters of the Amazon mingle with those of the Orinoco and the La Plata.

The river Cassiquiare connects the Orinoco with the Rio Negro, a tributary of the Amazon, and the head-waters of the Paraguay, in the La Plata System, unite with those of the Madeira, in the Amazon System; so that the Amazon, La Plata, and Orinoco basins may be regarded as forming one great basin.

The Valley of the Amazon is the largest river-basin in the world; it is three-quarters as large as the United States. The mouth of the river is so wide that it is like a sea of fresh water. The tides sometimes rise to a height of 12 or 15 feet. The Madeira, a tributary of the Amazon, is longer than any river in Europe.

Among American rivers, the Rio de la Plata ranks next to the Amazon and the Mississippi in the extent of its basin. Only a few rivers of the Eastern Continent have larger basins than the La Plata.

Many of the tributaries of the La Plata are navigable nearly to their sources, and the country drained by them is of remarkable fertility.

Besides the three great rivers in South America, there are the Magdalena, the San Francisco, the Rio Negro (of the Argentine Republic), the rivers of Guiana, and many other important streams, all of which add largely to the commercial and agricultural resources of the countries through which they flow.

The western slope of South America is steep and narrow, and only small mountain-torrents flow into the Pacific. A desert region fringes the coast north of 26° S. latitude.

14. There are but few permanent lakes of large size in South America. With the exception of Lake Titicaca and Lake Maracaybo, they are more like vast morasses than like lakes.

Lake Titicaca is about half as large as Lake Erie, and is, with the exception of Sir-i-Kul (a small lake in Asia), the highest lake in the world. Its waters flow into a river which discharges into a smaller lake, but has no outlet to the sea. Lake Maracaybo is, properly speaking, a gulf or bay, being an inlet of the Caribbean Sea.

Many of the South American lakes are mere marshes or pools during the dry season; but in the rainy season they spread out into vast shallow sheets of water, flooding the surrounding country and adding to its fertility.

Questions.—How do the waters of some of the tributaries of the Amazon mingle with those of the Orinoco and the La Plata? Describe the Valley of the Amazon. Which river-basins are larger than the Basin of the La Plata? Why are the rivers west of the Andes shorter than those east of that system? Name the largest lakes. What is said of the lakes in the rainy season? In the dry season? Of Lake Titicaca? Of Lake Maracaybo?

15. Climate.—South America lies chiefly in the Torrid Zone, and, in about three-fourths of its area, it has a tropical climate.

The lowlands within the Tropics are hot, and the easterly trade-winds, laden with moisture from the Atlantic, supply abundant rain, which, added to the evaporation from the vast river-surface, makes the climate damp and unhealthy.

The climate of the highlands depends partly upon their latitude and partly upon their altitude. The high table-lands of the Andes have a cool and delightful temperature at all seasons, and, for this reason, there are many large cities in the elevated valleys. In like manner, all the plateaus have their climate modified by their elevation.

South of the Tropic, the climate is that of the Temperate Zone. In the extreme south the Antarctic currents and the winds from the icy summits of the Andes make the country very cold. Cape Horn is a bleak region of fogs, rains, and storms; and, in the Strait of Magellan, snow falls almost every day.

The rainfall of South America is regulated, to a great degree, by the Andes. They condense upon their eastern slopes the moisture of the prevailing winds from the Atlantic; hence, on the Pacific side there is an extensive rainless tract.

South of 30° S. latitude, westerly winds prevail, and their moisture is precipitated on the western slope of the Andes, leaving the eastern slope comparatively dry.

The coast-ranges of Brazil partly intercept the moisture of the easterly winds, and in the interior the Brazilian Highland has less copious rains than its coast regions have.

16. Productions and Animals.—In luxuriance and variety of vegetation, South America is not surpassed by any country in the world. This is due to the great heat and abundant moisture.

The forests abound in gigantic palms, tree-ferns, and bananas; in rosewood, mahogany, logwood, Brazil-wood, and caoutchouc (from whose sap India rubber is made); and in many other valuable trees useful for the timber or for the dye-stuffs that they yield.

Coca, sarsaparilla, ipecacuanha, cinchona (from which quinine is obtained), and other medicinal plants of great value are found in various regions. Coffee and sugar are exported in great quantities. There is an inexhaustible supply of food-plants and tropical fruits, and of resins, spices, gums, and perfumes.

Immense herds of cattle, horses, and sheep are pastured on the great plains, and stock-raising is an important industry.

The most important metals are gold, silver, platinum, copper, iron, and tin. Coal, sulphur, nitrate of soda, and saltpetre abound in various localities. Valuable deposits of guano are found on the islands near the Pacific coast. Brazil is rich in diamonds, rubies, emeralds, topazes, sapphires, and other precious stones.

The animals of South America include the puma, the jaguar, the ocelot, the tapir, the monkey, the boa, the alligator, the iguana, the basilisk, the armadillo, the sloth, the alpaca, and the llama. In the mountain regions the llama is used as a beast of burden. The lowlands are infested with reptiles and insects of great variety, and venomous snakes, scorpions, centipedes, and spiders make some regions uninhabitable.

The beasts of prey, though numerous and formidable, are inferior, in size, strength, and ferocity, to those of Asia and Africa.

Many of the birds and insects of South America are remarkable for their brilliant coloring. Parrots, humming-birds, and butterflies of large size and great beauty abound in the forests. On the Andes the condor, the largest of all flying birds, is found. The nandu, or American ostrich, roams on the treeless southern plains.

The domestic animals, except the alpaca, llama, and dog, were originally of European stock, brought into the country by the Spanish settlers.

17. Inhabitants.—The population is over 33,000,000, and consists of whites, Indians, negroes, and mixed races.

The whites, who form but a small proportion of the population, are chiefly the descendants of Spanish and Portuguese settlers. The negroes were brought into the country for slaves, but all of them have been freed.

Questions.—Is South America, in general, a hot or a cold country? Describe the climate of the lowlands within the Tropics. The climate of the highlands. What is the climate of the extreme south? What is said of the rainfall in South America? What are the principal productions? Name some of the animals of South America. How do they compare with those of the tropical regions of the Old World? What is said of the reptiles and insects?



SCENE IN A BRAZILIAN FOREST.

The Indians of the settled states are an inoffensive people, and in some places perform most of the labor of the country. In the interior, however, there are many fierce and savage tribes.

18. History.—Columbus landed at the mouth of the Orinoco River, in 1498. European nations soon took possession of South America. Brazil was settled by the Portuguese; Guiana, by the Dutch and French; and the rest of the country, by the Spanish.

In the first quarter of the present century the Spanish colonies, after a long and severe struggle, threw off the yoke of Spain, and established themselves as independent republics. Brazil, in 1822, effected a peaceable separation from Portugal, and the son of the king of Portugal was made emperor of Brazil. In 1889 the reigning emperor was deposed, and the form of government was changed to that of a republic.

19. Religion.—The people of South America are chiefly Roman Catholics, except in British and Dutch Guiana, where the Protestant religion prevails.

POLITICAL DIVISIONS.

20. South America includes ten Republics: *The United States of Brazil, Venezuela, United States of Colombia, Ecuador, Peru, Bolivia, Chili, Uruguay, Paraguay, and the Argentine Republic*; also the colonies of *British, Dutch, and French Guiana*.

Questions.—What classes does the population comprise? What is said of the negroes? Of the Indians? By whom were the various countries of South America first settled? Which country still belongs to European powers? To what religion are the principal part of the inhabitants of South America attached? Name the Political Divisions of South America. Into what colonies is Guiana divided?

VENEZUELA, UNITED STATES OF COLOMBIA, ECUADOR, AND PERU.

21. These States are much alike in the character of their surface, climate, and productions. Each of them is divided into three distinct regions: the narrow plain on the coast; the mountains and plateaus in the centre; and the great plains which stretch from the Andes into the interior.

The *climate* on the coast of Venezuela, Ecuador, and the United States of Colombia is hot, moist, and exceedingly unhealthful.

The *coast* of Peru is dry and barren, for the prevailing winds blow from the south-east, and the lofty mountains in this State intercept the rain-clouds in their passage from the Atlantic Ocean.

22. The largest towns in this region are in the interior, and are generally situated on the table-lands, where the climate is cool and healthful.

Owing to the mountainous character of the country, communication between the towns of the coast and of the interior is difficult, and commerce very limited. Traveling among the mountains is often extremely difficult and dangerous.



TRAVELING AMONG THE ANDES.

There are scarcely any carriage-roads; travelers and goods are carried by mules, or on the backs of men. The traveler sits in a chair which is slung upon the back of the Indian porter; and in this manner they cross the most frightful chasms, often upon the slippery trunk of a tree, where a single false step would be fatal.

23. Venezuela.—The greater part of this State is included within the Llanos, or plains of the Orinoco.

No white man has ever reached the source of this great river, which flows through a wilderness of forests and plains. Upon the banks dwell a tribe of savages, who partially subsist upon balls of clay. They are called the "dirt-eaters of the Orinoco."

La Guayra is the principal sea-port. Caracas, the capital, is among the mountains. Margarita, a small island of the West Indies, near the coast, belongs to Venezuela. Margarita (which means "a pearl") was once famous for its pearl fisheries.

Questions.—Which of the States resemble one another in surface, climate, and productions? Into what regions is each divided? What is the character of the coast of Venezuela, Ecuador, and the United States of Colombia? Of Peru? Where are the principal towns situated? Where is Venezuela? What kind of people live on the banks of the Orinoco? Name the principal sea-port of Venezuela. What is the capital?

24. United States of Colombia.—The Andes are divided, in this Republic, into three chains. Down the valleys between them flow the Magdalena and Cauca, the principal rivers of the country.

Cartagena is the principal sea-port. Aspinwall and Panama, on opposite shores of the Isthmus of Panama, are connected by a railroad. Bogota (the capital) and Popayan are on lofty table-lands in the interior, several thousand feet above the sea.

25. Ecuador is crossed by the Equator, and derives its name from that circumstance. It contains Chimborazo, Cotopaxi, and several more of the most famous volcanoes of the Andes.

Quito, the capital, and largest city, is situated on an elevated plain, almost directly under the Equator. Guayaquil, on the gulf of that name, is the principal sea-port.

26. Peru, though now of little importance among nations, is remarkable for its history.

At the time of the discovery of the New World, Peru, like Mexico, was inhabited by Indians, who were considerably advanced in civilization. They were governed by a race of princes, called Incas, whose empire extended along the Andes, from the United States of Colombia to the southern boundary of Chili.

Pizarro, a bold Spanish adventurer, had heard of the wealth of Peru, and the great abundance of its gold and silver. With a small band of fierce and brave followers, he entered the country, took possession of the empire and treasure of the Incas, and Peru thus became a part of the Spanish possessions.

The Lobos and Guanape Islands, which lie on the coast, belong to Peru. They are of great value for the immense quantity of guano found upon them. It is exported to Europe and the United States, for manure.

Lima, the capital of Peru, and one of the largest cities west of the Andes, is situated in a fine river valley. Callao is the principal sea-port. Among the mountain-towns are Cerro Pasco, famous for its silver mines; Cuzco, the capital of the ancient Peruvian monarchy; Arequipa, and Huamanga.

27. The exports of this section of South America are made principally from La Guayra and Cartagena on the Caribbean Sea, and Guayaquil and Callao on the Pacific Ocean.

From La Guayra are shipped coffee, cotton, sugar, cocoa, indigo and hides; from the other ports, gold and silver, hides, some tobacco, cotton and Peruvian bark.

BOLIVIA.

28. Bolivia was named in honor of General Bolivar, under whose guidance the people threw off the yoke of Spain.

The foreign trade is carried on principally through Peru and the Argentine Republic, but communication is so difficult, that few of the products will pay the cost of transportation to the coast.

Potosi stands on the side of a mountain, at the height of 13,350 feet above the level of the sea, and is said to be the highest city in the world. The silver mines of Potosi are estimated to have yielded the value of sixteen hundred millions of dollars since their discovery; but though they are nearly as rich as ever, they are not now worked for want of proper enterprise.

La Paz, the nominal capital and largest town, Sucre, at which place the Legislature frequently meets, and Cochabamba, the second town in size, are on the high table-lands of the interior.

CHILI.

29. Chili lies wholly upon the western side of the Andes. The greater part of the country is covered with hills, which branch off from that great chain, and diminish in height as they approach the coast.

The most fertile districts of Chili are in the central part of the country. Towards the north, the hills become more naked and barren, and finally merge into the Desert of Atacama.

Questions.—Describe the United States of Colombia. What is the capital? From what does Ecuador derive its name? What is the capital? For what is Peru remarkable? Name the capital. In honor of whom was Bolivia named? Through what countries does it carry on its foreign trade? For what is Potosi noted? What is the capital and largest town of Bolivia? Where is Chili? What is the character of the surface?

30. One of the Juan Fernandez Islands, 400 miles from Chili, is famous for having been the solitary residence of Alexander Selkirk, a Scotch sailor. His life and adventures in this lonely spot are supposed to have given rise to the story of Robinson Crusoe.

31. The **Climate** of Chili is temperate, except in the extreme southern part, and remarkably healthful. The rains fall in the winter months, from June to September, and the country is soon covered with wild flowers and verdure.

32. The Chilians are more active and intelligent than the other inhabitants of Spanish America, and are making considerable advancement in their state of society. They have already built about 600 miles of railroad.

The Araucanians are a bold and warlike tribe of savages, inhabiting a distinct territory in the central part of Chili. They are a noble race; and, by their singular valor, have always maintained their independence of Spanish rule.

Santiago is the capital of Chili. Valparaiso is the principal sea-port, and the most important city on the western coast of South America. Copper and other metals are exported in considerable quantities from Copiapo and Tongoy. Wheat is also an important article of export. Punta Arenas is a noted port.

THE ARGENTINE REPUBLIC.

33. The Argentine Republic consists of a number of States united under a government modelled after that of the United States.

The people are intelligent and progressive, and have built more miles of railroad than any other South American country.

34. Except in the north-east, the country is too dry for tillage, and is treeless; but is well adapted for grazing, and sustains vast herds of horses and cattle. The herdsmen, called *gauchos*, are a wild, desperate class of men, and are among the best horsemen in the world.

Buenos Ayres, the capital, is the largest city in the Southern Hemisphere, and one of the most important commercial cities in South America. Parana is rapidly increasing in population. Rosario has of late years become a commercial mart of much importance. Mendoza is the centre of trade between the Argentine Republic and Chili.

35. **Patagonia** is a sterile country, inhabited only by native tribes of Indians. The Patagonians are a tall and muscular people, many of whom are more than six feet in height. They subsist upon their herds of cattle, and by hunting.

The Argentine Republic established its claim to jurisdiction over Patagonia and a part of Tierra del Fuego in 1881.

Tierra del Fuego is the most southern part of the inhabited world, and is peopled by a race of miserable savages, who live chiefly by fishing. They are probably the lowest human creatures in the world.

The *Falkland Islands*, off Patagonia, belong to Great Britain. Great numbers of wild cattle find pasturage there, and seals are hunted for their fur.

Questions.—For what is one of the Juan Fernandez Islands famous? What is the climate of Chili? Who are the Araucanians? Name the most important towns of Chili. What is said of the Argentine Republic? Describe the surface. What is said of Buenos Ayres? Who inhabit Patagonia? Where is Tierra del Fuego? To what country do the Falkland Islands belong? Where are they?

URUGUAY.

36. This republic occupies the southern part of the Brazilian table-land, and consists of high, rolling plains, destitute of trees.

The rearing of cattle is almost the only occupation of the people. Montevideo is the capital, and the only town of importance.

PARAGUAY.

37. This country, situated far in the interior, has hitherto had but little communication with foreigners. It is the only country in South America, except Bolivia, having no sea-coast. Asuncion is the capital.

Mate (*mah'tay*), or Paraguay tea, is the dried leaf of an evergreen tree which grows in great abundance in Paraguay. A beverage made from this tea is a favorite drink in South American countries.

38. Paraguay is situated in the Torrid and South Temperate Zones, and is naturally fitted for the production of the various plants of those regions.

Agriculture, and other branches of industry, are, however, very backward, and *mate* is almost the only export of importance. The exports of the countries occupying the basin of the Rio de la Plata are principally made from the cities of Buenos Ayres and Montevideo. They consist mainly of hides, horns, bones, tallow, and wool.

THE UNITED STATES OF BRAZIL.

39. The central and eastern regions of this immense country form a low table-land, crossed by mountains, which seldom rise more than two thousand feet above its level.



GAUCHOS LASSING CATTLE ON THE PAMPAS.

The low lands of the interior and on the coast are excessively moist and hot. The table-lands and the provinces of the south have a milder and drier climate.

Brazil is one of the richest countries in the world, in its natural productions. Its commerce is very extensive, especially with the United States. The gold mines are productive, and many of the diamonds now in use came from Brazil.

The exports are coffee, hides, sugar, rice, cotton,

rosewood, caoutchouc (or India-rubber), Peruvian bark, tapioca, and many other articles. Caoutchouc and Peruvian bark are brought down the Amazon, and are shipped from Pará. Brazil has about 4000 miles of railroad in operation, and several new lines and extensions are in process of construction. Ocean telegraph cables connect Brazil with Portugal and the United States.

Rio Janeiro, the capital, is one of the largest cities in South America. It is the greatest coffee-market in the world, and has one of the finest harbors. Bahia, Pernambuco, Maranhão, and Pará, are also large and important commercial cities. The towns in the interior are small, and of but little note.

GUIANA.

40. **Guiana** is a low and fertile region, with a climate and productions wholly tropical. The heat is very great.

It is divided into British, Dutch, and French Guiana. Georgetown is the capital of the British; Paramaribo, of the Dutch; and Cayenne, of the French portion. The exports are sugar, rum, coffee, cocoa, indigo, and tropical fruits.

Questions.—Describe Uruguay. Where is Paraguay? What is *Mate*? Through what cities are the products of the La Plata countries exported? Describe the surface of Brazil. Its climate. Name some of its productions. What is the capital? What are the principal sea-ports? What are some of the exports? What kind of country is Guiana? To what nations does it belong? What are the exports?



QUESTIONS ON THE MAP AND TEXT OF SOUTH AMERICA.

Outline.

How does the outline of South America differ from that of North America? Which has the greater number of large islands near the coast? What ocean is east of South America? What ocean is west? What sea is north? Are the West India Islands included in North or South America? By what country in South America is the island of Margarita owned? By what strait is Tierra del Fuego separated from Patagonia?

Where are the Falkland Islands? To what country do they belong? Where are the islands of Juan Fernandez? For what are they famous? To what country does the island of Chiloe belong? Where are the Lobos and Chinch Islands? To what country do they belong? For what are they valuable?

What is the most northern cape of South America? Where is Cape Parina? Cape St. Roque? Cape Horn? What is Cape Horn? What bay south of the Isthmus of Panama? What gulf on the coast of Ecuador?

Surface.

What three mountain-systems in South America? Which of these skirts the western coast? Through how many degrees of latitude does it extend? What is the character of this system on the Isthmus of Panama?

How far are the Andes from the Pacific coast? Do they generally consist of one or of several chains? What is the breadth of the system? To what convulsions of nature is the region of the Andes liable? What effect have these upon the towns?

How high is the loftiest summit of the Andes? In what country is it situated? Where is Chimborazo? Nevado de Sorata? What is the meaning of "Nevado"? Where is Aconcagua? Cotopaxi? Potosi? Which of these are volcanoes? Is any mountain of North America as high as Aconcagua?

Where are the Brazilian Mountains? Between what rivers do the Parime Mountains lie? What is the character of the surface of South America, east of the Andes, with the exception of these two systems? In what general direction does the land slope?

Rivers and Lakes.

Into what ocean do the principal rivers of South America flow? Why are those on the east side of the Andes the largest? Name the three principal rivers. Why do their waters sometimes mingle? In what season does this occur?

Which is the largest river in South America? What is the area of its basin? Has any other river a larger basin? In what three mountain-systems do the waters of this basin rise? Which of these systems is on the west? On the north? The south-east?

The Amazon is formed by the union of the Marañon and Ucayale: in what mountains do they rise? In what country? Over what kind of surface do they flow? What is the length of the Amazon? What kind of surface is drained by the Amazon, east of the Andes? What island at the mouth of the Amazon?

What is the largest tributary of the River Amazon on the north? How is it connected with the Orinoco? Name the largest tributary on the south. Which of the southern tributaries discharges itself near the mouth of the Amazon? Name the two tributaries between the Tocantins and the Madeira.

Between what two mountain-chains is the Basin of the Orinoco situated? What are the plains of the Orinoco called? In what general direction does this river flow? Between what two mountain-systems is the La Plata Basin situated? Which of these partly separates it from the Basin of the Amazon?

Which has the most numerous lakes: North or South America? What is the general character of the South American lakes? In what countries is Lake Titicaca situated? How high is it located? Do its waters flow into the sea? Where is Lake Maracaybo?

In what country is the Magdalena River? What is its principal tributary? Name the bodies of water through which you would pass, sailing from the mouth of the Cauca to that of the Madeira. In what country is the Essequibo River? Into what does it flow?

Down what rivers would you float from Lake Reyes to reach the Ocean? In what mountain-systems do the Parana, Paraguay, Uruguay, and San Francisco rivers rise? Why does the San Francisco flow in an opposite direction from the others?

Climate.

On which side of the Equator is the greater part of South America situated? Would you find the climate growing warmer or colder, in going southward from the Equator? How does the elevation of a place affect its climate?

Which zone contains the greatest extent of South America? What, then, is the prevailing character of the climate: temperate or tropical? Where will you find (in the tropical portion of the country) a mild and temperate climate?

How many seasons are there in the tropical region? In what months is the wet season, in the northern half of the Torrid Zone? In the southern half? If you should cross the Llanos of the Orinoco in July, would you find them clothed with verdure, or parched with heat?

What is the season, in Rio Janeiro, in July? Is December one of the rainy or dry months at that place? Do the seasons in the South Temperate Zone occur in the same months as in the North Temperate? (See lesson on Zones, page 8.) What is the season in Chili, then, in July and August? In December and January?

Political Divisions.

Name the countries bordering on the Pacific, beginning at the north. Which of these are in the Torrid Zone? In the Temperate? What unsettled territory at the south? Name the divisions on the northern coast. Name all those on the Atlantic coast between Guiana and Cape Horn.

Which is the largest of the South American countries? Which countries have no sea-coast? Describe the climate of the Peruvian coast? Of the coast of Ecuador? United States of Colombia, and Venezuela.

What is the government of Brazil? To what nations does Guiana belong? What is the government of the other countries? From what European nation is the white population of Brazil descended? The whites of the Spanish republics? By whom is the interior of South America chiefly inhabited?

What countries are partly included within the Basin of the La Plata? Between what two rivers is Paraguay situated?

What was the extent of the empire of the Incas? Where is Araucania? Why is it independent? Where is the Desert of Atacama? What kind of a country is Patagonia? Describe the Patagonians.

Miscellaneous.

Why are many of the towns in South America situated among the mountains? Why are the towns on the coast of Venezuela, United States of Columbia, and Ecuador, unhealthy? Why is the coast of Peru so dry?

Are the following towns on the coast, or among the mountains: La Guayra, Bogota, Cayenne, Caracas, Aspinwall, Panama, Popayan, Quito, Guayaquil, Cuzco, Potosi, Callao, Lima, Valparaiso, Sucre, Arequipa, Huamanga, Tongoy? Let each scholar describe the situation of one of these towns.

Ship a cargo of goods from Para to New York: what articles would be sent, and across what ocean? From Rio Janeiro to Baltimore? From the Guanape, or Lobos, Islands to Philadelphia? From Valparaiso to San Francisco?

From what ports would tin and copper be exported? Diamonds? Gold? Hides? Coffee? Cocoa? Rum? Sugar and molasses? Peruvian bark? From what country is Mate obtained? Where is it principally consumed?

Bound each of the divisions of South America. Sketch a map of South America, locating the principal mountains and rivers, and the chief towns. Spell the following words:—Quito, Cassiquiare, Guiana, Maracaybo, Magellan, Venezuela, Rio Janeiro, Uruguay, Paraguay, La Guayra, Caracas, Chimborazo, Cotopaxi, Guayaquil, Callao, Cuzco, Arequipa, Huamanga, Araucania, Montevideo, Bahia, Paramaribo, Cayenne, Falkland, Chiloe, Aconcagua, Marañon, Ucayale, Madeira.



EUROPE.

PHYSICAL FEATURES.

POSITION.—Europe is the north-western division of the Eastern Continent. It is partly in the North Temperate and partly in the North Frigid Zone. It extends from about 36° 30' N. to 71° N. latitude, and from about 68° E. to 9° W. longitude.

2. Size.—Europe is the smallest of the Grand Divisions. It has an area of over 3,900,000 square miles.

Its length from Cape St. Vincent to the Ural Mountains is about 3400 miles, and its breadth from North Cape to Cape Matapan about 2400 miles. Its coast-line is more than 20,000 miles in length—greater in proportion to its area than the coast-line of any other Grand Division.

3. Outline.—The outline of Europe is more irregular than that of any other Grand Division. Large gulfs and seas penetrate far into the interior, forming extensive peninsulas, modifying the climate and thereby affecting the productions, and affording unequaled advantages for commercial intercourse.

The peninsulas of Europe occupy about one-fifth of its area, and the numerous islands on the coasts have an area equal to about one-twenty-fifth of the mainland.

Questions.—What are the latitude and the longitude of Europe? What is said of its coast-line in relation to its area? How does the outline of Europe compare with that of the other Grand Divisions? What effect have the numerous indentations with regard to climate and commerce? What is said of the peninsulas and the islands?

Position.—In what direction from Europe is Asia? North America? South America? Africa? In what direction from the United States are the British Isles? What countries are crossed by the Arctic Circle? By the meridian of Greenwich? By parallel 40° N. latitude? How many degrees from the North Pole is North Cape? How many degrees from the Arctic Circle is Cape Matapan? In what direction from Florida are the Mediterranean peninsulas? When is it noon in Greenwich, what time is it in St. Petersburg (32° E.)? In Gibraltar (5° 30' W.)? In Rome (12° 30' E.)? (See *Standard Time*, Page 62, ¶ 5, 6, 7.)

Size.—What is the length of Europe on parallel 50° N.? On the Arctic Circle? Its breadth from the Strait of Gibraltar to North Cape? (Measure on map by Scale.)

Outline.—Which boundary of Europe is least irregular? On what bodies of water would a vessel sail from the Sea of Azov to St. Petersburg? Name five peninsulas. All the seas, border and inland. The gulfs, bays, channels, and straits. Five islands north of parallel 40° N. Five south of it. What countries are benefited by the Gulf Stream? Are the Loffoden Islands in the Atlantic or in the Arctic Ocean? How can you tell?

4. Surface.—Europe consists mainly of two great divisions—*Highland Europe*, in the south, and *Lowland Europe*, in the central and eastern parts.

The Carpathian, the Riesen Gebirge, and the Harz Mountains extend nearly to the North Sea, and form the dividing-line between the mountainous region and the vast low plain.

5. Highland Europe includes the Spanish Plateau, the Central Plateau, the peninsulas of Italy and Greece, and the Plateau of the Balkans.

The Spanish Plateau is the most important plateau in Europe. Its average elevation is between 2000 and 3000 feet, and the highest point is Mount Mulhacen, a peak of the Sierra Nevada. All the active volcanoes of Europe are in the Mediterranean islands and peninsulas.

The low river-plains between the mountain-ranges within the limits of Highland Europe are remarkable for their productiveness. The Plain of the Po is called "the garden of Europe."

6. Lowland Europe, or the Great Plain, extends from the Bay of Biscay to the Ural Mountains, and from the Arctic Ocean to the Black Sea. It includes the Northern, Eastern, Southern, and Western Plains; the Russian and Ural Plateaus; and part of the Danube River Valley.

Questions.—Of what does the surface of Europe consist? What mountain-ranges form the dividing-line between Highland and Lowland Europe? What does Highland Europe include? Describe the Spanish Plateau. What is said of the river-plains of Highland Europe? Give the extent of Lowland Europe.

Surface.—What countries are wholly in Lowland Europe? Wholly in Highland Europe? Partly in Lowland Europe? Partly in Highland Europe. Where are the steppes? The tundras? Name the mountain ranges extending north and south. In what direction do the mountains of Russia extend? Of the Spanish Peninsula? Locate Mount Elburz. Mount Etna. What plateaus are in Lowland Europe?

Drainage.—What hills are the chief divide of Russia? In what direction from these hills do the Russian rivers flow? What is the longest river wholly in Lowland Europe? The longest river of Highland Europe? Which is in lower land—the mouth of the Volga or the mouth of the Rhine? The source of the Rhone or the source of the Don? Is the general slope of the Scandinavian Peninsula to the south or to the east? How can you tell by the map? Are the tundras near the Upper or the Lower Petchora? Name all the countries drained by their rivers into the Black Sea. Into the North Sea. Into the Baltic. The Mediterranean.

Climate.—Why has Western Europe a milder climate than Eastern Europe has? What winds warm Southern Europe? What mountains protect it from cold north winds? Why will wheat ripen farther north in Europe than in America? Which has the less

The British Isles, with their extensive mining region, are a continuation of the great continental plain, separated from the mainland only by a very narrow strait. The Scandinavian Peninsula has a low plain in the east, and in the west a plateau with a steep descent to the Atlantic coast.

7. Europe is crossed from east to west by a great mountain-system, which is continued in Asia to the Pacific Ocean. The Sea of Marmora and the Archipelago occupy the only break in this immense highland.

The principal ranges of the European system are the Cantabrian Mountains, the Pyrenees, the Cevennes, the Alps, the Dinaric Alps, the Balkans, the Carpathian, the Crimean, and the Caucasus Mountains. The only mountains of importance not connected with this system are the Ural and the Scandinavian Mountains. The highest peak in Europe is Mount Elburz, in the Caucasus Range.

8. The Alps are the highest mountains within Europe, and the most famous of all the mountain-systems in the world.

They are renowned for their historic and poetical associations, as well as for the beauty and grandeur of their scenery. Their lakes, glaciers, and varied rock-formations are of peculiar interest to scientific students and explorers. Numerous passes in the mountains afford great facilities for traveling, and every year thousands of tourists visit the Alpine regions.

Questions.—What is said of the British Isles? Of the Scandinavian Peninsula? Name the principal ranges of the great mountain-system of Europe. Name two ranges not connected with this system. What is the highest mountain-peak of Europe? What is said of the Alps? By whom are they much visited?

severe climate—Norway or Sweden? Bergen or St. Petersburg? Why is Philadelphia (40° N.) colder than Naples (41° N.)? Why have the southern slopes of the Alps a greater rainfall than the northern slopes have? Which has the greater rainfall—Norway or Sweden?

Productions and Animals.—Name the most important food-plants, and tell where each is cultivated. The most important forest tree of Russia. The grains and the fruits of Russia. The fruits of the Mediterranean countries. Where is hemp raised? Flax? Tobacco? Cotton? Name the principal food-plants of France. (Let each scholar name a vegetable production and tell where it is raised.) Why is the mulberry cultivated? The poppy? Why are hops cultivated?

Name some dye-stuffs, and tell where they are found. Where is arsenic found? Amber? Lead? Sulphur? Nitre? Salt? Coal? Iron? Petroleum? Copper? Silver? Tin? Plumbago? Emery? Coral? Gold? Platinum? (Let each scholar name a mineral production and tell where it is found.) What quadruped is found farthest north? Locate the various fisheries. (Let each scholar name an animal—beast, bird, or fish—state its uses, and tell where it is found.)

QUESTIONS ON THE MAP AND TEXT.



9. The Alps are from 10,000 to 12,000 feet high; the Cantabrians and Pyrenees, 8000; the Carpathian Mountains, 7000; and the Balkans, 5000. The loftiest peak of the Alps is Mont Blanc.

10. **Drainage.**—The Atlantic Ocean and its branches receive most of the rivers of Europe. The Volga and the Ural flow into the Caspian Sea, which has no outlet. The Dwina and the Petchora belong to the Arctic System.

The Alps and the Valdai Hills are the sources of most of the rivers of Europe. The former, with their snow-covered summits and great glaciers, are reservoirs for many streams flowing in all directions. The largest of these are the Danube, the Rhine, and the Rhone, which have their head-waters very near one another. The Po drains the southern slopes of the Alps. Although the Valdai Hills are low, the longest rivers of Europe, the Volga and the Don, rise among them.

The rivers of Europe are not so long as the rivers of America, but they are more numerous, and, as many of them are navigable through the greater part of their course, they are very important commercially. The Volga is connected by canals with the White Sea, the Black Sea, and the Baltic, and its facilities as a commercial route are thereby largely increased.

The largest lakes are in Russia and Sweden, in the region surrounding the Baltic Sea. The Alpine lakes are comparatively small, but they are of great depth, and are famous for the beauty of their scenery. The British Isles contain a number of small and exceedingly picturesque lakes.

11. **Climate.**—Europe exhibits great variety of climate, from semi-tropical warmth to Arctic cold.

Southern Europe, protected by mountain-chains from the cold winds of the north and open to hot winds from the African desert, has an almost tropical climate, except in the mountainous regions. The summers are long, the winters mild and short, and the climate, in general, is delightful. Naples, with its orange groves and luxuriance of evergreen vegetation, presents a marked contrast to New York with its long icy winter, yet the two cities are in the same latitude.

In Eastern Europe the winters are very cold, even as far south as the Black Sea, and the summers are very hot. On the western coasts, westerly winds and the influence of the Gulf Stream render the climate milder and more uniform than that of regions farther inland. In England the grass is green throughout the year, and there are, as a rule, no extremes of temperature; while in Russia, in the same latitude, the country is buried in snow in winter and parched in summer.

Questions.—What is the highest Alpine peak? To what system do most of the rivers belong? Name two rivers that have no outlet to the sea. What is said of the Alps and the Valdai Hills in relation to the rivers of Europe? What is said of the lakes? Compare the climate of Eastern Europe with that of the western coast-regions.

The Atlantic coast of Europe is much warmer than that of America in corresponding latitudes; and, while dry, cold winds and the Arctic current render Labrador treeless and frozen, warm winds from the ocean and the warm waters of the Gulf Stream make the British Isles moist and mild and fertile. Again, the harbor of Hammerfest, the most northerly town in Europe, is never frozen, while Greenland, in the same latitude, is a field of perpetual snow and ice.

The rainfall is abundant, particularly on the western coasts and in the warm southern countries. The *steppes* (treeless plains) are dry and cold; the *tundras* (mossy swamps) are frozen during the greater part of the year.

12. **Productions and Animals.**—Europe is rich in the productions of the Temperate Zone, and is well supplied with useful minerals.

On the shores of the Mediterranean the olive, the almond, the orange, the lemon, the fig, the walnut, the chestnut, and the mulberry (whose leaves feed the silk-worms) grow in abundance. Rice, cotton, and beet-root (from which sugar is made) are extensively cultivated. The cork-oak is indigenous to Southern Europe.

In Central and Southern Europe vine-culture is an important branch of agriculture. Wheat and the other grains of the Temperate Zone are abundant. Rye, oats, barley, and potatoes are raised even north of the Arctic Circle. Hemp and flax are important productions in Russia and in parts of Central Europe.

The ilex, the myrtle, the laurel, and other evergreen plants are found in Southern Europe; the deciduous trees of the Temperate Zone, in Southern and in Central Europe; and the pine, the fir, and the spruce, in Northern Europe and in all the higher mountain regions.

13. The metals are found chiefly in the mountainous regions. Gold and silver occur in many places, but in comparatively limited quantities. Iron, copper, tin, zinc, nickel, lead, coal, and salt exist extensively. The Ural Mountains yield platinum, and Spain has rich mines of quicksilver.

Southern Europe is noted for the fineness and variety of its marbles, and Great Britain for its slate and coal. Diamonds are found in the Ural Mountains, and opals and garnets of great beauty, in Austria-Hungary.

14. Domestic animals are reared in all parts of Europe, and the dairy products of various sections are of great value.

Several varieties of deer, hares, foxes, and wild boars are found in the forests, and fur-bearing animals abound in the colder regions. The Alps and the Pyrenees have the brown bear, the chamois, and the ibex; Russia has the elk and the wolf; Northern Europe has the eider-duck, and Southern Europe raises the valuable silk-worm. The cod, herring, mackerel, salmon, sardine, and sponge fisheries are famous.

Questions.—Compare the Atlantic coast of Europe with that of America. What is said of the rainfall? What are the *steppes*? The *tundras*? Name the most important productions of Southern Europe. What is said of the trees in the various sections? Why is the mulberry tree of importance in Southern Europe?

15. Inhabitants.—The population is over 360,000,000, which is larger in proportion to the area than that of any other Grand Division.

Most of the people are of the Caucasian race. The Finns, the Laplanders, the Turks, and the Magyars of Hungary, are a mixture of the Mongolian with other races.

16. Religion.—Christianity is the prevailing religion. The Turks and some tribes of Southern Russia are Mohammedans; and in many countries there are numbers of Jews.

The people of Russia and Greece belong chiefly to the Greek Church. Most of the inhabitants of Southern Europe, Austria, Belgium, and Ireland, and about one-third of the people of Germany and Switzerland, are Roman Catholics. Protestants are most numerous in Great Britain, The Netherlands, Denmark, Sweden, and Norway.

POLITICAL DIVISIONS.

17. Europe comprises four empires, *Russia, Austria-Hungary, Germany, and Turkey*; twelve kingdoms, *Great Britain, Norway, Sweden, Denmark, The Netherlands, Belgium, Spain, Portugal, Italy, Greece, Servia, and Roumania*; and two republics, *France and Switzerland*.

There are also the small republics of Andorra in the Pyrenees and San Marino on the western coast of the Adriatic, and the principalities of Montenegro and Bulgaria, the latter including Eastern Roumelia. The two last named, with Servia and Roumania, until 1878 formed part of the Turkish Empire. There is also on the sea-coast of France the small independent principality of Monaco.

Great Britain, Germany, France, Russia, Austria-Hungary, and Italy, are the most important countries of Europe. They are called the "Great Powers." The Netherlands is sometimes called Holland.

18. Europe may be divided into four sections: *Northern and Eastern Europe, The British Isles, Western Europe, and Central Europe*.

NORTHERN AND EASTERN EUROPE.

19. Northern and Eastern Europe comprise the *Kingdom of Sweden and Norway* and the *Russian Empire*.

THE KINGDOM OF SWEDEN AND NORWAY.

20. Sweden and Norway occupy the Scandinavian Peninsula. They form two distinct States, but are united under one king.

The islands of Gothland and Oeland, in the Baltic Sea, belong to Sweden.

21. Surface.—The western part of Sweden, and nearly the whole of Norway, are mountainous. The southeastern part of Sweden is a plain, like that on the opposite shores of the Baltic.

The mountains of the peninsula rise abruptly from the Atlantic coast, but they descend more gradually towards the east.

22. Productions.—The chief wealth is in the iron and copper mines, the forests, and the fisheries. The exports are iron, lumber, and fish.

The greater part of the peninsula is too barren for cultivation, yet rye, oats, and barley are raised in Norway, 1400 miles further north than on the coast of America.

23. Towns.—Stockholm, the capital of Sweden, is the chief commercial city. Christiania is the capital of Norway. Bergen is a noted fishing port. Hammerfest is the most northern town of Europe.

24. LAPLAND.—The country north of the Arctic Circle, between the White Sea and Atlantic Ocean, is called Lapland. It is divided between Russia and Sweden.

The chief wealth of the Laplanders consists in their numerous herds of reindeer. These supply them with food, clothing, and the means of traveling.

Questions.—What is said of the population of Europe? What different forms of religion do the inhabitants profess? Name the great European powers? Into what four sections may Europe be divided? Name the countries of Northern and Eastern Europe. Describe the surface of Sweden and Norway. What islands belong to Sweden? Name the chief productions. What is said of Lapland?

THE RUSSIAN EMPIRE.

25. The Russian Empire includes the greatest continuous extent of territory in the world. It comprises one half of Europe, and nearly half of Asia, or about one-sixth of the entire land surface of the earth.

European Russia is, for the most part, very level. The only mountainous section is the region bordering upon the Caucasus and Ural Mountains.

26. Productions.—The principal wealth of Russia consists in its forests, and in the products of agriculture and grazing. Iron, gold, and platinum, are found in abundance in the Ural Mountains, principally on the Asiatic side.

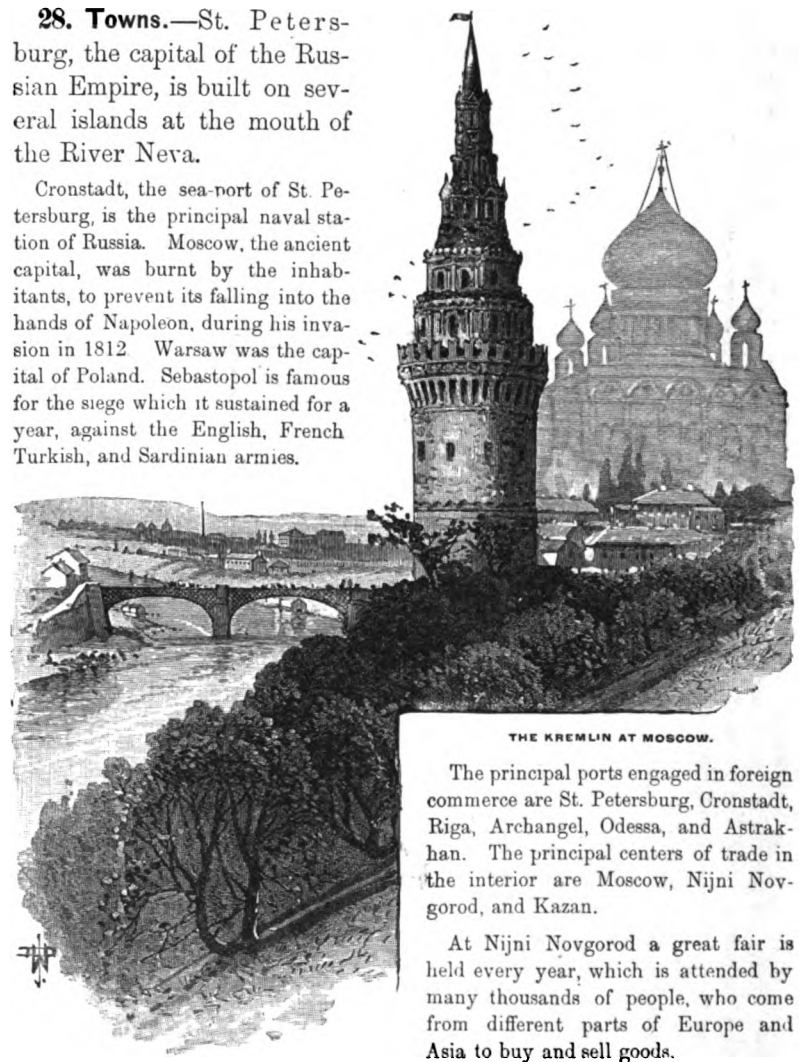
The forests cover two-fifths of the country. Great quantities of wheat are raised in the central and southwestern regions, and exported to Western Europe. Hemp, flax, tallow, hides, leather, and timber, are also important articles of export.

27. Inhabitants.—The people are divided into four classes:—1. the nobles; 2. the clergy; 3. the merchants; 4. the lately emancipated serfs. The government is an absolute monarchy.

On the outskirts of Russia there are many tribes of mixed races, such as the Finns and Laplanders, the Samoyedes, and the Cossacks. The Cossacks inhabit the *Steppes*, or treeless plains in the southeast, and are of great service in the Russian army as light cavalry. The Circassians, a bold and hardy people who long resisted the Russians, belong to the Caucasian race.

28. Towns.—St. Petersburg, the capital of the Russian Empire, is built on several islands at the mouth of the River Neva.

Cronstadt, the sea-port of St. Petersburg, is the principal naval station of Russia. Moscow, the ancient capital, was burnt by the inhabitants, to prevent its falling into the hands of Napoleon, during his invasion in 1812. Warsaw was the capital of Poland. Sebastopol is famous for the siege which it sustained for a year, against the English, French, Turkish, and Sardinian armies.



THE KREMLIN AT MOSCOW.

The principal ports engaged in foreign commerce are St. Petersburg, Cronstadt, Riga, Archangel, Odessa, and Astrakhan. The principal centers of trade in the interior are Moscow, Nijni Novgorod, and Kazan.

At Nijni Novgorod a great fair is held every year, which is attended by many thousands of people, who come from different parts of Europe and Asia to buy and sell goods.

Questions.—Is there any empire larger than the Russian? Describe the surface of European Russia. Name the principal productions. What are the principal exports? Into what classes are the people divided? Name some of the tribes who live on the outskirts of Russia. To what race do the Circassians belong? What is the capital of Russia? Which are the principal ports for commerce?

QUESTIONS ON THE MAP AND TEXT OF EUROPE.

Area.

State the area of Europe. How does Europe compare, in size, with Asia? Africa? The United States? Name the largest country. What proportion of Europe does Russia occupy?

Outline.

What ocean upon the western coast? Upon the northern? What great sea on the southern coast? What sea on the north is a branch of the Arctic Ocean? What branches of the Atlantic Ocean between Sweden and Russia and Prussia? What sea is east of England and Scotland? What channel between England and Ireland? Between England and France? What bay west of France?

What strait connects the Mediterranean Sea with the Atlantic Ocean? The Adriatic Sea with the Mediterranean? What sea is connected with the Mediterranean by the Strait of Dardanelles, the Sea of Marmora, and the Strait of Bosphorus? What strait connects the Sea of Azov with the Black Sea? Name all the straits and seas on which you would sail, going from the Sea of Azov into the Atlantic Ocean. Where is the Levant?

What peninsula lies between the Atlantic Ocean, and the Baltic Sea and Gulf of Bothnia? Between the Atlantic Ocean and the Mediterranean Sea? Between the Mediterranean and Adriatic Seas? Which is the most northern cape of Europe? The most western?

What great inland sea, not connected with the ocean, on the south-east of Russia? Name the countries, the coasts of which are washed by the Arctic Ocean. The Caspian Sea. The Black Sea. The Bay of Biscay. The Gulf of Bothnia.

What large island north-west of Europe? Where is Jan Mayen Island? Where are the Faroe Islands? To whom do they belong? What islands partially separate the Gulf of Riga from the Baltic Sea? Name the islands on the coast of Sweden. What island north of Norway? What islands north of Russia?

Surface.

In what general direction does the principal mountain-system extend? Name the principal parts of this chain, commencing with the Cantabrian Mountains. In what country are the Cantabrian Mountains? What countries are separated by the Pyrenees? What parts of the system are in France?

Name the mountains on the north of Italy. The chain which forms a continuation of the Alps. By what mountains in Asiatic Turkey is the mountain-system of Europe continued into Asia? The Caucasus Mountains form part of the principal European system: between what seas are they situated?

Name the branches of the principal system in the Spanish Peninsula. In France. Italy. Turkey and Greece. Austria-Hungary and Germany. Name the two mountain ranges of Europe not connected with the chief system. Which of these forms a part of the boundary between Europe and Asia?

Lakes and Rivers.

Why are the rivers of Europe smaller than those of America? Which are the four largest rivers of Europe? (*See Statistical Tables, page 130*). Into what seas do they flow?

What rivers flow into the Arctic Ocean? The Caspian Sea? The Black Sea? What river flows into the Sea of Azov? The Adriatic Sea? What river of France flows into the Mediterranean Sea? Of Spain? What two rivers of the Spanish Peninsula flow into the Atlantic Ocean?

Into what does the Loire flow? The Seine? What rivers flow into the North Sea? The Baltic? Into what two groups are the lakes of Europe divided? Which is the largest lake of the Baltic group?

Climate.

In what zone is the greater part of Europe situated? What countries are partly included within the Frigid Zone? What change in climate is experienced in passing from the south to the north? Why have the shores of the Mediterranean a milder climate than the regions north of the principal mountain-system? How does the climate of Eastern Europe differ from that of Western Europe? Why?

Productions.

Name the leading productions on the shores of the Mediterranean. What is made from the fruit of the olive-tree? Of what use is the mulberry-tree? Where is most of the wine made? What is made from the beet-root? What grains are raised in Europe? What articles of food are grown north of the Arctic Circle? In what countries of Northern Europe are the fisheries important? What are the most important minerals?

Sweden and Norway.

What kingdom is included within the Scandinavian Peninsula? What mountains traverse the western part of the country? Describe the surface of Norway. What part of Sweden is mountainous? What part of Sweden is level?

Which country, Norway or Sweden, has the greater extent of level surface? In which, then, would you expect to find the rivers the largest? Into what waters do most of the lakes and rivers of Sweden flow?

How does the climate of this peninsula differ from that of Southern Europe? How do the productions differ? In which section is vegetation most luxuriant? Why is the coast of Norway warmer, and more moist, than that of Russia, in the same latitudes?

How much farther north is grain raised in Norway, than on the opposite coast of America? What are the chief productions of the Scandinavian Peninsula? The chief exports? Why does not grain form one of the principal exports? As the forests in England are not very extensive, is it probable that timber would be exported thither from Norway?

Where is the capital and chief commercial city of Sweden? Of Norway? Where is the most northern town in Europe? Where is Gothenburg? Carlscrona? What islands belong to Sweden? Where is "The Naze"? Where is the North Cape? Where is Lapland? Within what countries is it included? What constitutes the chief wealth of the Laplanders?

Russia.

Describe the general surface of Russia. What range of mountains is east of Russia? What range is south? Where are the Valdai Hills? What and where are the Steppes? Name the principal rivers flowing north. South. These two sets of rivers are connected together by canals: can the water-shed, then, between them have any great elevation?

Is the climate of Russia subject to greater, or less, extremes than that of Western Europe? In what part of Russia are the winters coldest? The summers warmest? Where does the winter last longer: near the Black Sea or the Arctic Ocean? Where is vegetation more luxuriant: in the northern or the southern section?

Name the vegetable productions of Russia. The animal. The mineral. To which of these do the forests belong? To which do hemp, flax, and wheat? Tallow, hides, and leather? Name the principal exports. On which side of the Ural Mountains are gold, iron, and platinum, chiefly found?

In what part of Russia do the Circassians live? The Cossacks? Where is the capital of the Russian Empire? Moscow? Warsaw? Tell what you know about each of these cities.

What are the principal commercial cities upon the Baltic Sea, and its inlet? Upon the White Sea? The Black Sea? What town near the Caspian Sea? Where are the two chief centres of trade in the interior? What can you say of Nijni Novgorod? Of Sebastopol?

Miscellaneous.

Ship a cargo of wheat from Odessa to Marseilles (in France): through what waters must you pass? With what articles would you load a vessel at Riga for London? Through what waters must the vessel pass? Would the people of Norway and Russia be likely to exchange timber? Why?

Down what river would you float, to go from Nijni Novgorod to Astrakhan? Across what sea would you sail, and in what direction, to go from Stockholm to Danzig? What mountains would you cross, proceeding in a direct line from Stockholm to Bergen? What sea, in going from Bergen to Edinburgh?

Bound each of the divisions of Europe. Sketch a map of Europe, locating the chief mountains and rivers and some of the principal towns. Spain. Mediterranean. Azov. Gibraltar. Dardanelles. Enikale. Moscow. Finisterre. Pyrenees. Cevennes. Apennine. Elbe. Seine. Loire. Bordeaux. Douro. Danube. Danaper. Stockholm. Hammerfest.

GREAT BRITAIN AND IRELAND.

THE British Islands comprise Great Britain, Ireland, and many smaller adjacent islands.

The island of Great Britain includes England, Scotland, and Wales. The monarchy is styled "The United Kingdom of Great Britain and Ireland." The entire kingdom, with its colonies, constitutes the British Empire, which is generally called Great Britain.

2. Coast.—The sea-coast is very irregular, and abounds in fine harbors and roadsteads.

3. Surface.—Scotland, Wales, and the north and west of England, are mountainous. The rest of England is undulating or level. Ireland is bordered by hills or low mountains, while the interior is like a basin, with a low and flat surface.

The surface of Scotland is divided by the Grampian Mountains into the Highlands and Lowlands, — the Highlands lying north, and the Lowlands south, of the mountains.

4. Climate.—The climate is moist and mild. The winters even of Scotland are rarely severe. The soil of England and Ireland, by careful culture, has been rendered fertile and productive.

The moisture of the climate gives the fields a fresh and verdant appearance; but it sometimes prevents the ripening of the crops. Ireland contains over 3,000,000 acres of turf bog, from which *peat*, the chief article of fuel, is obtained.

5. Productions.—The chief wealth of Great Britain consists in her commerce and manufactures, and in products of her mines.

Great Britain surpasses every other country in the world in the amount of her manufactures; of which the most important are those of cotton, wool, and iron.

The tin mines of Cornwall have been famous from remote antiquity. Rich mines of coal, copper, iron, and slate are found in Wales.

A considerable part of the tin and coal used by mankind are produced in Great Britain. This country is also extremely rich in iron, lead, and other useful minerals.

6. Commerce.—In the extent and importance of her commerce, Great Britain holds the first rank among nations. She imports from other countries such materials as her own soil or mines do not furnish, and, in return, sends her manufactured products to every market in the world.

Questions.—What do the British Islands comprise? What is the British Empire? Describe the surface. Climate and soil. What are the chief productions? What can you say of the commerce of Great Britain? Of the navy? Of the minerals?

The trade with the United States exceeds that with any other nation, the amount of exports to this country being nearly double that which she sends to any other.

Great Britain requires a large navy to protect her extensive commerce and distant colonies. She accordingly ranks among the first naval powers in the world. She has also established lines of steam packets to all the principal ports of the world.

7. Towns.—London, the capital of the British Empire, is the largest city in the world, and the first in commercial importance. It is situated on the Thames, has a population of nearly 5,000,000 (including suburbs), and covers an area of about 122 square miles.

Liverpool is the great port of the manufacturing districts. It is the city through which most of the commerce with the United States is carried on. Its fine docks cover more than four hundred acres.

Portsmouth, Plymouth, and Chatham are the three principal naval stations. Manchester is noted for its cotton manufactures—the most extensive in the world; Leeds and Bradford, for their manufactures of wool; Birmingham, for hardware; Sheffield, for cutlery and plated ware.

Edinburgh is the metropolis of Scotland. Glasgow is the largest city, and the chief seat of commerce and manufactures. Dundee and Aberdeen are noted for manufactures and ship-building.

Dublin is the capital and largest city in Ireland. Belfast is the first commercial city, and the seat of the linen manufacture. Cork is the third city in Ireland, and has an extensive commerce. Limerick is noted for the manufacture of gloves, lace, and fish-hooks. Galway is the principal seaport on the western coast.

Merthyr Tydfil, the largest town in Wales, is noted for its iron-works. Swansea is the principal seat of the copper trade, and is much resorted to for sea-bathing.

8. Great Britain has colonies in every quarter of the globe, and unites under one sovereign a greater number of people than are ruled by any other government, except the Chinese.

Foreign Possessions.—The principal foreign possessions are as follows:—

In Europe.—Gibraltar, in Spain; Malta, Gozo, and Cyprus, in the Mediterranean.

In Asia.—British India, including Ceylon, Hindustan, a part of Indo-China, and Singapore; the island of Hong-Kong (China); Aden (Arabia).

In Africa.—Sierra Leone, and other settlements on the western coast; Cape Colony, Natal, and other countries in South Africa; St. Helena and Ascension Islands; Mauritius, Amirante, and Seychelle Islands; Socotra Island.

In Oceania.—Part of Borneo, and the island of Labuan; Australia; Tasmania; Norfolk Island; New Zealand.

In America.—The Dominion of Canada; Newfoundland; the Bermuda Islands; Balize; Jamaica, the Bahamas, and other islands in the West Indies; British Guiana; the Falkland Islands.

Questions.—Describe London. Liverpool. Name and describe the principal towns in Scotland. In Ireland. In Wales. Let each scholar name one of the foreign colonies of Great Britain and tell what he knows about it.

QUESTIONS ON THE MAP AND TEXT.

In what direction from the mainland of Europe are the British Isles? In what direction from the United States? What branches of the Atlantic separate them from the mainland? What sea between England and Ireland? By what channel may it be entered from the south? From the north? What strait separates England from France? The island of Anglesea from Wales? What does the island of Great Britain comprise? What groups of small islands near it? Where is the Isle of Wight? The Isle of Man?

Where are the Grampian Hills? What is the portion of Scotland north of these hills called? South of them? What hills separate England and Scotland? Mount Snowdon (3571 ft. high) is the highest land in England and Wales: where is it?

Name three principal rivers flowing into the North Sea. Which of them is most important? Where is the Severn? The Mersey? The Solway? The Clyde? The Liffey? The Shannon? Name two of the Channel Islands.

Which is farther north, Great Britain or New England? Which of these countries has the milder winters? Why? Which has the warmer summer, London or St. Petersburg? Why? How does Great Britain compare with other countries in the amount of her manufactures? What is commerce? Does Great Britain export or import cotton? Broadcloth? Tea? Razors?

With what country is she most extensively engaged in trade? Which divisions have a fertile soil? Where is peat found? Is it a vegetable or mineral product? Cornwall is the south-western county of England: what celebrated mines there? What mines in Wales? Are minerals generally found in mountainous or level districts?

To what city in England would you go to buy cotton goods? Hardware? Woolens? Cutlery? Which is the largest city in Scotland? In Ireland? What town in England opposite Calais in France? From Dover to Calais is twenty-one miles: across what strait? What is the most south-western point of the island of Great Britain? What is the chief town in Wales? What channels separate Ireland from Great Britain?

What is the latitude of London? Longitude? Where is Menai Strait? What city has a population nearly equal to that of all New England? Where is Valentia Island? What is the seat of the linen manufacture in Ireland? Where is Cork? What articles are manufactured at Limerick? Which is farther west, Ireland or the Spanish Peninsula? On what river is Dublin? Give the boundary, and name two important towns, of each division of the British Isles. Name, also, the principal rivers and mountains.

Draw a map of each division, locating the chief towns, mountains, and rivers.

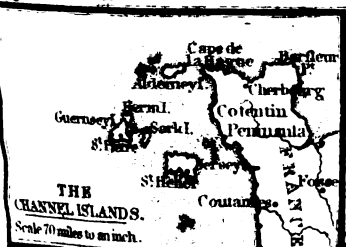
MAP OF GREAT BRITAIN AND IRELAND

STATUTE MILES 69.2 TO A DEGREE.
Scale 70 miles to an inch.

THE SHETLAND ISLANDS.



Scale 70 miles to an inch.



THE CHANNEL ISLANDS.
Scale 70 miles to an inch.



MONT BLANC.

WESTERN EUROPE.

WESTERN EUROPE comprises Denmark, Belgium, The Netherlands, France, Spain, and Portugal.

2. Surface.—With the exception of the Spanish Peninsula, these countries are mostly included in Lowland Europe, and have, therefore, a level surface.

3. Climate.—The climate is much more mild and moist than that of the Atlantic coast of America in the same latitudes. The winter is warmer, and the heat of summer less intense.

This is owing chiefly to the influence of the Gulf Stream, a warm ocean-current, which, crossing the Atlantic from the vicinity of the Gulf of Mexico, bathes the western shores of Europe, cooling the air in summer and warming it in winter.

Thus, Copenhagen has a warmer winter than Washington, though the latter place is about eleven hundred miles farther south; yet the summer of Denmark is much cooler than that of Canada.

In the Spanish Peninsula, the summers are dry and hot, but the winters on the table lands are cold.

4. Coast.—The coast-line is much indented, thus furnishing excellent advantages for commerce.

5. The greater part of this section belongs to the Atlantic declivity, and is drained by several large rivers, the principal of which are the Rhine, the Scheldt, the Seine, the Loire, the Garonne, the Douro, the Tagus, the Guadiana, and the Guadalquivir.

The Rhone, "one of the most beautiful of rivers," drains the south-eastern part of France and flows into the Mediterranean Sea.

The rivers of France, Belgium, and The Netherlands, are navigable the greater part of their course. They are connected with one another by numerous canals. The Languedoc Canal, one hundred and fifty miles long, joins the Garonne to the Mediterranean Sea, furnishing an inland passage from the Atlantic to the Mediterranean.

Questions.—What does Western Europe comprise? Describe the surface. How does the climate compare with that of the Atlantic coast of the United States? What is the cause of this difference? Give an example to illustrate this. Describe the coast-line. Name the chief rivers which drain this section. Describe the Languedoc Canal. What is said of agriculture? Of manufactures? Of commerce?

6. Productions.—Agriculture is the chief occupation of much the larger portion of the inhabitants of these countries. The manufactures, those of France and Belgium especially, are of great value, and celebrated for their delicacy and beauty. The commerce, both foreign and domestic, is extensive.

Spain and Portugal, though among the most fertile countries of Europe, have, until within a few years, given but little attention to commerce. Their agriculture and manufactures are also comparatively unimportant.

7. Minerals.—Western Europe abounds in valuable minerals. Belgium, next to England, furnishes more coal than any other country in Europe. Over eight hundred iron-works are in operation in France. The quicksilver mines of Almaden, in Spain, are among the richest in the world.

DENMARK.

8. This kingdom comprises the northern part of the peninsula of Jutland and several islands near the entrance of the Baltic Sea.

The Faroe Islands, Greenland, Iceland, Jan Mayen, and three small islands of the West Indies, also belong to Denmark.

9. The **Surface** of the country is very low and flat; some portions of the northern coast are below the level of the sea, from which they are defended by dikes.

10. The **Climate** is moist, and milder than that of the northern German States. The soil is suitable for agriculture, and affords excellent pasturage.

11. Productions.—Cattle-raising and dairy products, agriculture, commerce, and the fisheries, are the sources of wealth. There are no mines, nor forests, and but few manufactures.

12. Towns.—Copenhagen is the capital, and one of the finest cities in Northern Europe.

THE NETHERLANDS AND BELGIUM.

13. Surface.—The coast is so low that, in many places, dikes are necessary to prevent the land from being overflowed.

14. Productions.—The wealth of the Netherlands is derived from her dairy products, her fisheries, manufactures (especially of linen and distilled liquors), and commerce.

The commerce is very large, particularly with the East Indies. Belgium is rich from her agriculture, her mines and manufactures, and is the most densely populated country in the world.

Among the most celebrated manufactures of Belgium are the carpets and the laces of Brussels and Mechlin.

15. Commerce.—The position of these countries, and their numerous navigable rivers, give them remarkable facilities for commerce, in which they are second only to Great Britain.

Internal communication is promoted by numerous canals. In The Netherlands, especially, the canals run through the streets of the towns, and form a complete network over the country.

16. Inhabitants.—The people of the Netherlands, usually called Dutch, are very industrious, and are generally better educated than the inhabitants of any other part of Europe, except Prussia and some of the smaller German States. The Belgians are not less industrious, but education is not so general.

Questions.—What minerals are found in Western Europe? What does Denmark comprise? Describe the surface. Climate. Productions. What is the surface of The Netherlands and Belgium? Describe the productions of The Netherlands. Of Belgium. Of what use are canals in The Netherlands? What commercial advantages have these countries? What is the character of the Dutch? Of the Belgians?

17. Towns.—The Hague is the capital of The Netherlands. Brussels, the capital of Belgium, is noted for its manufactures of carpets and laces. Amsterdam, Antwerp and Rotterdam are the chief commercial cities of the two countries.



A SCENE IN THE NETHERLANDS.

The *Foreign Possessions* of The Netherlands are, next to those of Great Britain, the most important and valuable belonging to any nation. They include most of the East India Islands (excepting the Philippine group); the western half of Papua; and a part of Guiana, and some of the smaller West India Islands, in America. Belgium has no foreign possessions.

FRANCE.

18. France is one of the richest and most powerful countries in the world. The position of the country and the fertility of its soil give it great commercial and agricultural advantages.

19. Surface.—France is separated from Spain on the south by the Pyrenees; from Italy and Switzerland on the east by the Alps and the Jura Mountains.

The Cevennes and the Auvergne Mountains form the Western part of the Central plateau. The Vosges Mountains lie at the north-eastern extremity of the plateau. The rest of the surface belongs to Lowland Europe. In the south-west are the *Landes*, extensive plains of shifting sands, which the inhabitants cross on stilts.

20. Climate and Soil.—No country in Europe possesses a more favorable climate than France, and no one surpasses it in the value and variety of its vegetable products.

21. Productions.—Agriculture, manufactures, mining, and commerce are the principal branches of industry.

The olive, the mulberry-tree, and the orange are cultivated in the provinces bordering on the Mediterranean; grain, hemp, and flax are raised in the middle and northern provinces. Iron, coal, lead, and other useful minerals are abundant.

The vineyard products are the most celebrated of any in the world. Beet-root sugar is very extensively manufactured.

Questions.—What is the capital of The Netherlands? Of Belgium? Name the principal commercial cities. What foreign possessions has The Netherlands in Asia? In Africa? In America? What can you say of the position of France? Describe the surface of France. The climate and soil. What are the chief branches of industry?

France exports more wine, brandy, and silk goods, than any other country. The French are noted for their manufactures of jewelry, gloves, toys, perfumery, and other articles of finery, many of which are brought to the United States.

22. Inhabitants.—The French are noted for their literary and scientific attainments, and for their politeness, and love of military glory.

23. Towns.—Paris, the capital of France, and the largest city on the continent of Europe, is the most splendid city in the world, and is a great center of refinement and civilization.

The French language is spoken by the upper classes of Europe, and the influence of Paris is felt throughout the civilized world, in all that concerns taste and fashion.

Havre is the port of Paris. Marseilles, St. Nazaire, and Bordeaux are the principal sea-ports. Most of the wine is exported from Bordeaux. Versailles contains one of the most magnificent palaces in the world. Rouen is the great seat of the cotton, and Lyons, of the silk manufactures.

The Island of Corsica, celebrated as the birthplace of Napoleon, belongs to France.

The *Foreign Possessions of France* are Algeria, in Northern, and Senegal, in Western Africa, the Island of Réunion, and some smaller islands in the Indian Ocean; Pondicherry, and a few other places in Hindustan; Lower Cochinchina and Tongking, in Indo-China; New Caledonia, Tahiti, and the Marquesas Islands, in Oceania; and French Guiana, two small islands in the Gulf of St. Lawrence, Martinique, Guadeloupe, and a few other small islands of the West Indies in America. France has also a protectorate over Tunis and Madagascar in Africa, and Cambodia and Annam in Asia.

SPAIN AND PORTUGAL.

24. The Spanish Peninsula comprises the two countries of Spain and Portugal.

These were once very powerful nations, but their importance and the extent of their possessions are now greatly reduced.

25. Surface.—The interior consists of mountains and tablelands; approaching the coast, the country is undulating and level.

26. Productions.—The most important of these are the vine, olive, mulberry, and orange. Immense flocks of sheep are raised on the tablelands of the interior, and great quantities of wool, wine, and silk are exported.

27. Inhabitants.—The Spanish and Portuguese are a reserved, dignified, and indolent people. The lower classes are very ignorant.

28. Towns.—Madrid, the capital of Spain, is noted for its palaces and paintings; Lisbon is the capital of Portugal and the chief commercial city.

Barcelona, Valencia, Cadiz, and Malaga, are the most important commercial cities of Spain; Lisbon and Oporto, of Portugal. We obtain sherry wine from Cadiz, port wine from Oporto, grapes and raisins from Malaga, and oranges from Valencia.

Gibraltar, the strongest fortress in the world, belongs to Great Britain. Palos is the port from which Columbus sailed on his first voyage to America.

The *Foreign Possessions of Spain* are Cuba and Porto Rico, in the West Indies; the Philippine, Sulu, Ladrone, and Carolino Islands, in Oceania; and the Canary Islands, west of Africa.

The Balearic Islands, in the Mediterranean Sea, and Ceuta, a fortress in Africa, on the Straits of Gibraltar, also belong to Spain.

The *Foreign Possessions of Portugal* are the Azores, Madeira, and Cape Verde Islands, west of Africa; Angola and Benguela on the western, and Mozambique, on the eastern coast of Africa; Goa and Macao, in Asia; and part of the island of Timor, in Oceania.

29. Andorra.—This little republic occupies a valley south of the Pyrenees. The population is only 5000 or 6000, but the country has been independent for more than a thousand years.

Questions.—Describe the French people. Name the capital of France, and other principal cities. The foreign possessions. For what is Corsica noted? What countries occupy the Spanish Peninsula? Describe the surface. The inhabitants. What are the principal productions? Name the capitals, and important

QUESTIONS ON THE MAP AND TEXT OF WESTERN EUROPE.

Position.

Name the political divisions that compose this section. What important division, composed of islands, is still farther west? What sea, strait, and channel separate the British Isles from the mainland?

What ocean with its branches washes the coast of Western Europe? What sea south of France and east of Spain? What strait separates Europe from Africa? What strait connects the Cattegat and the Baltic Sea?

Where is the Bay of Biscay? The English Channel? The Gulf of Lions? Which is the most northern division of Western Europe? What sea west of it? Name the branches of this sea on the east of it.

What is the continental part of Denmark called? Where are the Balearic Islands? To what country do they belong? Name two islands which form part of Denmark. Where is Corsica? To what power does it belong? For what is it celebrated?

On what sea do The Netherlands and Belgium border? What countries form the eastern boundary of this section? Where is Cape Finisterre? Cape St. Vincent? Cape Ortegal? Cape de la Hague? The Skaw? What two capes at the entrance of the Strait of Gibraltar? Where is Cape Nao? Cape de Gata?

Surface.

Three of the mountain-chains of this section are considered a part of the great mountain-system of Europe: which of them is in Spain? Which is in France? Which of them forms the boundary between France and Spain? What part of France is mountainous? What mountains separate France from Italy? France from Switzerland? What part of Spain and Portugal consists of mountains and table-lands?

What countries of this section form a part of Lowland Europe? What, then, is the surface of Belgium and the Netherlands? Of the northern and western parts of France? Of Denmark? Where are the Auvergne Mountains? The Sierra Nevada Mountains? The Cévennes Mountains? The Vosges Mountains?

Rivers.

What large river of Central Europe flows through The Netherlands? What two rivers flow from Belgium through The Netherlands? (*The river Meuse of France assumes the name of Maese in Belgium, and of Mass in The Netherlands.*) Into what sea do all these rivers flow?

The Seine, Loire, Gironde, and Rhone are the principal rivers of France: name the body of water into which each flows. The Ebro, Guadalquivir, Guadiana, Tagus, and Douro are the principal rivers of the Spanish Peninsula: name the body of water into which each of these rivers flows. Which of them have a part of their course in Portugal? What branch of the Rhine in France? Of the Rhone?

Climate and Productions.

How does the climate of Western Europe contrast with that of the opposite shores of the Atlantic? What is the chief cause of this difference? What can you say of the climate of the Spanish Peninsula?

From what countries of Western Europe do we obtain the products of the vine? Of what country is wool an important export? From what country are the products of the dairy largely exported?

In what countries are silk goods made? From what country do we obtain gloves, perfumery, jewelry, and other fancy articles?

In which of these countries is coal found? Iron? Which has rich mines of quicksilver? In what country is beet-root sugar made? In what part of this section are the olive and mulberry successfully grown? Of what does France export more than any other country?

Denmark.

Of what does this kingdom consist? Describe the surface. The climate. What are the principal productions? Describe Copenhagen. Name the foreign possessions of Denmark. What passage between the island of Zealand and Sweden? What bodies of water does it connect? Where are the Great Belt and the Little Belt? What do they separate? Name three small islands at the entrance of the Baltic, belonging to Denmark. On what island is Elsinore? What are the exports of Denmark?

The Netherlands and Belgium.

What is a dike? Of what use are dikes to these countries? What term is used to signify the same thing in Louisiana? How is internal communication promoted in these countries? Would canals be as numerous if the surface were mountainous?

Where is the capital of The Netherlands? Of Belgium? Where is Amsterdam? Antwerp? Rotterdam? What foreign possessions has The Netherlands? Where is the Zuyder Zee? Leyden, Utrecht and Groningen have famous universities; where are these places? Where is Liege? Ghent? Where is Waterloo? Can you tell for what it is famous?

France.

In what do the agricultural and commercial advantages of France consist? On what river is the capital? On what sea is Marseilles? Where is Lyons? Rouen? Bordeaux? Havre? From what city is most of the wine exported? What city is the great seat of the silk manufacture? Of that of cotton goods?

Brest and Toulon are important naval stations: where are they? Cherbourg is famous for its breakwater and fine docks: where is it? In what direction from Paris is Versailles? For what is it famous? Where are the Landes? Let each scholar describe the situation of one of the colonies of France.

The Spanish Peninsula.

Of what two countries does this peninsula consist? How does their present importance compare with that of former times? Where is the capital of Spain? Of Portugal? Where is Barcelona? Cadiz? Oporto? Malaga? What can you say of Gibraltar? To what power does it belong? What fortress of Spain in Africa, nearly opposite to Gibraltar?

Where is Palos? From what place in Spain is sherry wine exported? Grapes and raisins? Oranges? From what place in Portugal do we obtain port wine? On what river are Seville and Cordova? Where is Valencia? Granada? Where are sheep raised? What valuable mines at Almaden? Where is the republic of Andorra? Let each scholar describe the situation of one of the Spanish colonies.

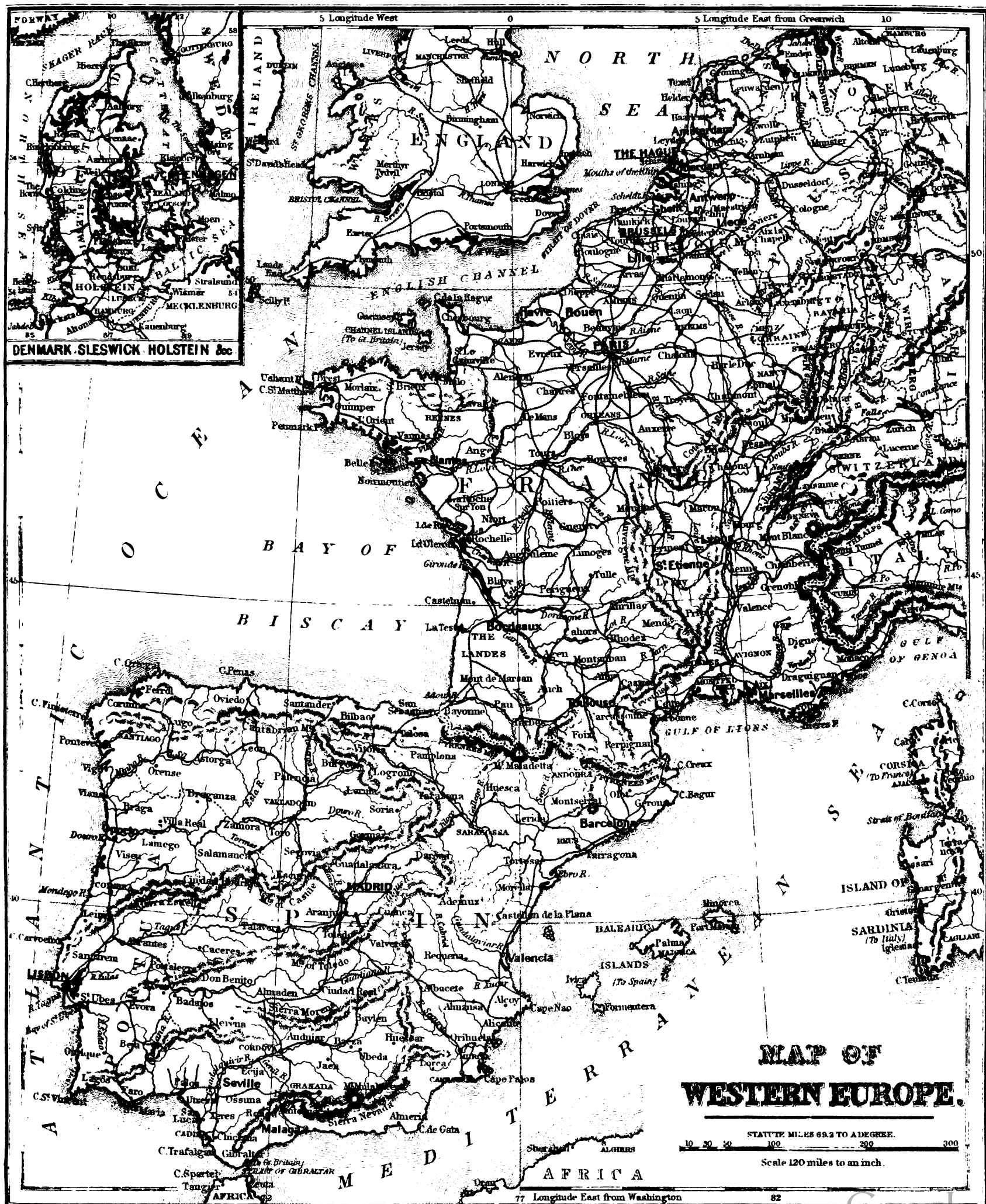
Miscellaneous.

On what waters would a vessel sail in going from Barcelona to Cherbourg? From Paris to London? Describe the voyage in a sailing-vessel from Rotterdam to Lisbon. What mountains would you cross in travelling in a straight line from Bordeaux to Turin? From Saragossa to Toulouse?

Freight a vessel at Marseilles with the products of the South of France: what articles would form her cargo? On what bodies of water would this vessel sail to go to Bremen? To which of the two cities of France, Rouen or Lyons, would you go to purchase silk goods? Cotton goods? Columbus sailed from Palos the 3d of August, 1492, on his first voyage of discovery: across what ocean did he sail? On which of the West Indies did he first land? Was his course directly west?

What metal is extensively worked in France? Of what do the French make sugar? Name all the mountain-chains you would cross, proceeding in a direct line from Malaga to Madrid. From Madrid to the shores of the Bay of Biscay. On what waters will a vessel sail in going from Amsterdam to Lyons?

Give the boundaries of each of the divisions of Western Europe, and the three principal towns, rivers, and mountains in each division. Sketch a map (from memory, if you can) of the Spanish Peninsula, and locate the principal mountains, rivers, and four of the chief towns. In the same manner sketch a map of France.





SCENE IN VENICE.

CENTRAL EUROPE.

CENTRAL EUROPE comprises Germany, Austria-Hungary, Switzerland, Italy, Turkey, Bulgaria and Eastern Roumelia, Servia, Roumania, Montenegro, and Greece.

2. Surface.—The northern part of Germany, including the greater portion of Prussia, and the province of Galicia (in Austria-Hungary), are parts of Lowland Europe.

The country near the Baltic Sea is very low. The Great Plains of Hungary and Turkey are parts of the Basin of the Danube. The Plain of Lombardy, in Northern Italy, is drained by the River Po. The remainder of Central Europe is mountainous.

3. Rivers.—The most important commercial rivers of this section are the Danube, the Rhine, and the Po. Next to the Volga, the Danube is the largest river in Europe.

The Rhine is famous for its grand and romantic scenery. Pleasant towns and villages lie nestled at the foot of lofty hills and graceful slopes clothed with vines; while the castles of feudal times frown from precipices apparently inaccessible. The Rhine, the Danube, the Po, and the Rhone rise very near one another.

4. Climate.—The climate of Central Europe is not generally so moist and warm as in the same latitudes of Western Europe.

5. Productions.—The agricultural productions vary with the climate. Minerals are abundant in the mountainous regions. The manufactures are more noted for variety than for the great amount of any one particular kind.

In the north, grain is the chief production. The vine is extensively cultivated in the central and southern regions, and the mulberry and olive are raised in the south. Great harvests of wheat are also produced on the plains which form the lower basin of the Danube. Oranges and lemons are raised in Sicily.

Woolen, cotton, and linen goods, are among the most important manufactures. Bohemia is celebrated for glass ware; Switzerland, for watches and jewelry; Italy, for braided straw, of which hats and bonnets are made.

6. The Commerce is conducted, on the north, through Bremen, Altona, Hamburg, and Dantzic; on the south, through Genoa, Leghorn, Brindisi, Trieste, Venice, and Constantinople.

Questions.—What does Central Europe comprise? Describe the surface. Which are the most important rivers? How does the climate of Central compare with that of Western Europe? Name the chief productions of the different sections. Through what cities is the commerce conducted on the north? On the south?

GERMANY.

7. The empire of Germany is formed by the union of Prussia, Bavaria, Saxony, Würtemberg, Baden, and a number of smaller States which formerly had independent governments.

8. Before their union under one government, the various States of the empire were ranged under two groups known as the North-German Confederation and South Germany. The former consisted of twenty-two States, of which Prussia was the largest and most important, while South Germany numbered four States.

In 1871, all the States of Germany were formed into one empire, and the king of Prussia was made emperor. At the same time the provinces of Alsace and Lorraine, which had long belonged to France, were annexed to Germany, making it the second State of Europe as regards population.

9. Surface.—Germany has a fortunate position. The northern portion lies chiefly in the basins of the Baltic and North Seas, is drained by large rivers, and has a long line of sea-coast, and good harbors.

East of the river Weser, the country is generally level, but in the southern portion, and especially near the river Rhine, it is mountainous and abounds in beautiful scenery.

10. Inhabitants.—The Germans are an industrious, intelligent, and well educated people, a person being rarely found who cannot read and write. In Prussia, Saxony, and most of the other States, every child above the age of six is obliged to attend school.

Great attention is paid to military education in Germany, and every subject is compelled to serve a certain number of years in the army.

11. Productions.—The most important productions are grain, tobacco, hemp, and flax; potatoes and beet-root (for making sugar); wool, manufactures (including wine), and the useful minerals.

12. Towns.—Berlin is the capital of Germany and also of Prussia. It is a beautiful city, and is the largest in the empire.

Munich, Dresden, Breslau, Cologne, and Strasburg are among the chief cities of Germany. Hamburg, Bremen, Königsberg, and Dantzic are the principal commercial cities. The latter is one of the greatest grain-shipping ports in Europe.

Many other towns in Germany are of large size; some are noted for remarkable events in history; others for magnificent churches or palaces; and others for their universities.

AUSTRIA-HUNGARY.

13. Next to Russia, Austria-Hungary has larger possessions in Europe than any other country.

14. Inhabitants.—The people are of different races, and speak many different languages. The Germans, Hungarians, Italians, and Poles are the most numerous.

15. Productions.—Large quantities of silver, iron, coal, and salt are mined. Grain, flax, wine, and manufactures are among the chief productions and exports.

16. Towns.—Vienna is the capital, and one of the largest and finest cities of Central Europe.

Prague is the commercial centre of Bohemia, and Buda-Pesth is the chief city of Hungary. Trieste is the only important seaport of the empire.

17. POLAND was formerly an important kingdom of Central Europe, but, after suffering many reverses, it is now divided among Russia, Germany, and Austria-Hungary.

Questions.—How is the Empire of Germany formed? How was it formerly divided? Describe the surface. The inhabitants. The productions. What is the capital? Name some of the chief cities. What is said of the size of Austria-Hungary? Describe the inhabitants. What minerals are found? Between what nations was Poland divided?

SWITZERLAND.

18. Switzerland is a republic, consisting of twenty-two States, or Cantons. It is the highest part of Europe.

The scenery of Switzerland is on the grandest scale: beautiful lakes lie embosomed among the mountains, which tower above the limits of perpetual snow; immense glaciers glisten upon the mountain sides, and romantic valleys form the channels of impetuous streams.

19. Inhabitants.—The Swiss are noted for their love of liberty and attachment to their native country.

Manufacturing small articles, such as watches, jewelry, and toys, is the leading business, and these articles are the principal exports.

Most of the population speak the German language. Italian is spoken in the Cantons adjoining Italy, and French in those adjoining France.

20. Towns.—Berne is the capital. Geneva is the principal seat of the manufacture of watches and jewelry.

ITALY.

21. Italy is one of the most celebrated countries on the globe. In ancient times it was the central part of the Roman Empire, which ruled all the known world.

22. Many important political changes have taken place in Italy. It was formerly divided into a number of States, which, in 1870, were united under one government. The Islands of Sicily, Sardinia and Elba form a part of this kingdom.

Italy has many merchant vessels, a strong navy, and extensive commerce. It is connected with Central Europe by railroads passing through the celebrated Mount Cenis and St. Gothard Tunnels.

23. Inhabitants.—The Italians are descended from the race that once conquered the world, and are noted for their love of music and of art.

24. Productions.—Raw and manufactured silks are the most important productions. Velvets, straw goods, macaroni, fruits, sardines, marble, sulphur, and borax, are exported.

Agriculture and the fisheries are important industries, and the people of northern Italy are largely engaged in manufacturing.

25. Towns.—Italy contains many towns and cities which are renowned in history or in art; almost every place is connected with some remarkable event.

Rome, the capital and chief city, has been famous for many centuries, and possesses great historic interest. It contains a large number of churches, among which is the celebrated cathedral of St. Peter. Rome is the residence of the head of the Roman Catholic Church, which has a greater number of members than any other Christian denomination.

Florence was the former capital of the kingdom of Italy. Naples, the largest city, is famous for its beautiful bay; Genoa, for its early maritime power and enterprise. Venice is built upon nearly a hundred small islands. In most parts of the town canals take the place of streets. Leghorn, Venice, Genoa, Naples, Palermo, Messina, and Brindisi, are the principal commercial cities.

EUROPEAN TURKEY.

26. European Turkey forms part of the Turkish or Ottoman Empire. The government of the empire is styled the Sublime Porte, and the sovereign is called the Sultan.

The Turkish Empire also includes Asiatic Turkey, Tripoli, in Africa, and the island of Candia in the Mediterranean. Egypt is also nominally subject to Turkey.

27. Inhabitants.—The Turks are Mohammedans. They are grave and solemn, ignorant, bigoted, and indolent, but very courageous.

Agriculture and the raising of cattle are the chief occupations, although carpets, silk goods and leather are manufactured to a considerable extent.

Questions.—Of what does Switzerland consist? Describe the country. The inhabitants. What is said of Italy? What political changes have taken place? Describe the inhabitants. For what are many of the cities and towns famous? Name the most important commercial places. What does the Turkish Empire comprise?



STREET IN CONSTANTINOPLE.

28. Towns.—Constantinople, the capital of the empire, is situated upon the Bosphorus, or Channel of Constantinople.

Constantinople is admirably situated for commerce, and exports the products not only of European and Asiatic Turkey, but also of other parts of Western Asia.

Adrianople and Salonica are next in size and importance.

29. BULGARIA and EASTERN ROUMELIA formed a part of the Turkish Empire until 1878, when, by the Treaty of Berlin, they were made practically independent.

Bulgaria became at that time an independent Principality, ruled by a Christian Prince, who was elected by the people. With the exception of an annual tribute to the Porte, the government is entirely independent.

Eastern Roumelia at the same time was created a separate State, but has since been practically united to Bulgaria.

Sophia is the capital of Bulgaria, and Philippopolis of Eastern Roumelia.

30. SERBIA and ROUMANIA, also parts of the Turkish Empire until 1878, are independent monarchies. **MONTENEGRO** is an independent principality.

Bucharest and Jassy in Roumania, and Belgrade in Serbia, are the principal cities.

GREECE.

31. Greece in ancient times was in advance of all other nations in civilization and learning. In the fifteenth century it was conquered by the Turks, but the Greeks revolted in 1821, and achieved their independence. The government is a limited monarchy.

Almost every part of the country is rendered interesting by some historical event, or by the remains of ancient temples and other structures.

Most of the islands of the Archipelago belong to Greece; of these Negropont is the largest, but Syra is the most important.

32. Inhabitants.—The modern Greeks are a handsome people, but they are indolent and insincere. Education, of late years, has received considerable attention.

The Greeks are skilful sailors, and carry on most of the commerce of the Levant. The leading articles exported are dried fruits, olives, olive oil, and silk.

33. Towns.—Athens is the capital and most important city of Greece. It was one of the most celebrated cities of ancient times, the birthplace of many renowned philosophers and orators, and the centre of art and learning.

Syra is the center of steam navigation in the Eastern Mediterranean. Zante and Corfu are important ports. These three cities are situated on islands of the same name.

Questions.—Describe the inhabitants of Turkey. How is Constantinople situated? What is said of Bulgaria? Of Eastern Roumelia? Describe Serbia, Roumania, and Montenegro. Name the principal cities. What is said of Ancient Greece? Of the modern Greeks? Describe Athens. Name the leading exports.

MAP OF CENTRAL EUROPE.

STATUTE MILES 69.2 TO A DEGREE.

Scale 140 miles to an inch



Outline.

What sea north of this section? What sea north-west of it? What gulf on the northern coast of Germany? What bay? What gulf on the south-western coast of Italy? What gulf on the south-eastern coast? Where is the island of Rügen? Heligoland? Where is the island of Sardinia? What strait separates it from Corsica?

What extensive country forms a part of the eastern boundary of this section? What great sea on the south? What three countries on the west? What large sea on the eastern coast of Turkey? What body of water on the south? What name is given to the strait which connects the Black Sea with the Sea of Marmora? On what two straits and sea would you sail, from the Black Sea to the Archipelago?

What two countries constitute the Turkish Peninsula? Name all the bodies of water you would traverse, in sailing along its coasts. What islands on the western coast of Greece? Where are the Cyclades? Where is Candia? What part of Greece is called the Morea? Name its southern cape. What gulf north of the Morea?

Between what two seas is the Italian Peninsula? Where is the Gulf of Taranto? Of Genoa? What strait between Sicily and Italy? Between Turkey and Italy? Where are Malta and Gozo? The Lipari Islands? Where is the Island of Elba? What islands in the Adriatic upon the western coast of Austria-Hungary? Name the gulfs upon the coast of Greece.

Surface.

What two mountain-ranges in this section form a part of the great central system of Europe and Asia? Which of them encloses, on three sides, the valley of the River Po? From what countries do they separate Italy? What peninsula do the Apennines traverse? Are the islands of Sicily, Corsica, and Sardinia, mountainous or level?

Along what sea do the Alps extend in a south-easterly direction? By what mountains in Turkey are they continued? In what direction? Near what strait do the Balkan Mountains terminate? What mountains extend through Greece, south from this chain? What is the general surface of the Turkish Peninsula: mountainous or level?

What mountains form a great part of the boundary of Hungary? Where are the Erz Gebirge (Ore Mountains)? The Riesen Gebirge (Giant Mountains)? The Hartz Mountains? The Black Forest Mountains? What province of Austria-Hungary is surrounded by mountains?

What parts of this section are included within Lowland Europe? Describe the general surface of the country north of the Carpathian Mountains and the chains in the central part of Germany. To what river-valley do the Plains of Hungary and Roumania belong? The Plain of Lombardy?

Rivers and Lakes.

Name the most important rivers of this section. The Rhine, Weser, Elbe, Oder, and Vistula, drain the northern slope of Central Europe: in what general direction do they flow? Which of them empty into the North Sea? Into the Baltic Sea?

What great river of this section flows into the Black Sea? Name some of the countries principally drained by this river. Which of its tributaries forms a part of the boundary between Roumania and Russia?

What part of Italy is drained by the River Po? Into what does this river flow? In the region of the Alps there are numerous beautiful lakes; in what country are those north of the Alps situated? South? What important rivers rise in these lakes?

Climate and Productions.

How does the climate of this section differ from that of Western Europe? Where is it warmest: north or south of the Alps and Balkan Mountains? Name the chief vegetable production in the northern part of this section. Where is the vine most extensively raised? The mulberry and olive?

What grain is raised in the lower basin of the Danube? Name the principal manufactures? For what manufactures is Bohemia celebrated? Switzerland? Italy? Where are oranges and lemons principally raised? In what region are minerals most abundant?

Germany and Austria-Hungary.

Name some of the States of which the Empire of Germany is composed. Which of them is the most important? Upon what two seas does it border? In what part of Germany, the northern, central, or southern, are the following divisions? Bavaria? Saxony? Würtemberg? Baden?

Between what two seas is Sleswick? What can you say of the situation of Germany? What mountains separate it from Austria-Hungary? What important river flows across the western part? Describe the surface of Germany. Mention some of the principal agricultural productions. What can you say of the general character of the people? Of their education? What large river flows into the Baltic Sea? What into the North Sea? Name the capital. Upon what river is it? Upon what river is Hamburg? Bremen? Cologne?

Name some other commercial cities? What can you say about Dantzic? Where is Strasburg? Metz? To what country did the last two cities formerly belong?

What can you say of the size of Austria-Hungary? In what part of the empire are Hungary and Transylvania? By what mountains are they partially surrounded? Where is Galicia? Bohemia?

From what country do the rivers Danube and Save separate Austria-Hungary? Where is the capital of Austria? On what sea is Trieste? On what river is Prague? Innsbruck? Buda-Pesth?

Switzerland.

What is the form of government in Switzerland? What languages are spoken in that country? By what mountains is one-half of the surface occupied? Are they in the northern or southern part of the country? Where is the capital? On what lake is Geneva?

Italy.

What islands form a part of the kingdom of Italy? To whom does the island of Corsica belong? What republic is there on the Adriatic Sea? What can you say of the commerce and navy of Italy?

What is the capital and chief city of Italy? Of whom is it the residence? Which is the largest city? Name some of the principal commercial cities. Name those situated on the Mediterranean Sea. The one on the Adriatic. The one on the Gulf of Genoa. The two on the Island of Sicily. On what river is Florence? Rome? Turin?

Turkey.

What constitutes the Ottoman or Turkish Empire? Where is the capital? Adrianople? Salonica? What large island belonging to Turkey south of the Archipelago? What principalities are only partially under the control of the Turkish government? Where is Sophia? Philippopolis?

Servia, Roumania, and Montenegro.

Of what empire were Servia and Roumania formerly a part? Bound each. Where is Jassy? Bucharest? Belgrade? Cetinje?

Greece.

What part of Greece forms the peninsula called the Morea? To what country do most of the islands of the Archipelago belong? Which of these is the largest? Which is the most important? Where is the capital of Greece? Where are the Ionian Islands?

Miscellaneous.

To what ports in this section, those on the Baltic or Mediterranean Seas, would a merchant go to purchase sweet-oil, silk, and fruit? Freight a vessel with wine and grain at Trieste for London: through what waters will she pass? A party of German vine-growers wish to emigrate to Ohio, and agree to meet at Hamburg; describe their entire route thence to Cincinnati. Where is Mt. Vesuvius? Mt. Etna?

Bound Austria-Hungary. Italy. Turkey. Greece. Spell Bavaria. Würtemberg. Bohemia. Altona. Adriatic. Zealand. Appenine. Bosphorus. Dardanelles. Moldavia. Wallachia. Marmora. Vesuvius. Sicily. Trieste. Constantinople. Denmark. Frankfort. Copenhagen. Königsberg. Dantzic. Cologne. Austria-Hungary.



PHYSICAL FEATURES.

POSITION.—Asia is the north-eastern division of the Eastern Continent. It is in the North Frigid, North Temperate, and Torrid Zones.

It extends from 2° to 78° N. latitude, and from 170° W. to 27° E. longitude.

2. Size.—Asia is the largest of the Grand Divisions. It has an area of over 16,000,000 square miles, nearly one-third of the land-surface of the globe.

Its length from east to west is about 6000 miles, and its breadth from north to south, 5200 miles. It has a coast-line of 35,500 miles. It contains the highest mountain-chains and peaks in the world; the loftiest and most extensive plateaus; the deepest and greatest depressions; and the largest lowland-plains, seas, and peninsulas.

3. Outline.—Asia has a very irregular outline. Its peninsulas occupy one-fifth of its area.

There are numerous islands on the eastern and the southern coasts, and a few bleak groups are on the northern coast.

4. Surface.—Like Europe, Asia is divided by its principal mountain-system into two parts—a highland region in the south and a vast lowland plain in the north.

Europe and Asia closely resemble each other in their general structure, and some geographers consider them as constituting, physically, but one continental mass.

Questions.—How many degrees of latitude does Asia comprise? Of longitude? What is said of its area? Compare, in general terms, its mountains, plateaus, seas, etc., with those of the other Grand Divisions. What is said of its outline? How is its surface divided?

Position.—In which hemisphere is the greater part of Asia? The extreme north-eastern part? What circles cross Asia? In what direction is it from Africa? From Australia? From Europe? From North America? From South America? How many miles from Cape Chelyuskin is the North Pole? The Arctic Circle? The Tropic of Cancer? How far from East Cape is Cape Prince of Wales? Which approaches nearest to the North Pole—Asia, Europe, or North America? Nearest to the Equator? When it is noon in Greenwich, what o'clock is it in Pekin (116° 30' E.)? When it is midnight in Pekin, what o'clock is it in Washington (77° W.)?

Size.—In which direction is Asia greater—from north to south or from east to west? How many degrees of the Arctic Circle are in Asia? Of the Tropic of Capricorn? Of the meridian 100° W.? Which is greater—a degree of this meridian or a degree of the Tropic of Cancer?

Outline.—Tell what bodies of land each of the following straits separates, and what bodies of water it connects: Behring, Perouse, Tuguru, Corea, Formosa, Malacca, Manaar, Ormus, and Bab-el-

5. Highland Asia consists chiefly of the Plateau of Thibet, the Plateau of Iran (or Turan), and the Plateau of Asia Minor. It includes also the southern peninsulas and the Great Central High Plain.

The *Plateau of Thibet* is the loftiest table-land in the world. At the western end of it is the *Plateau of Pamir*, a great mountain-knot from which several of the mountain-systems of Asia radiate.

The *Peninsula of Indo-China* is traversed by mountain-chains that extend in a southerly direction from the Plateau of Thibet, decreasing in elevation until they terminate in the Malay Peninsula.

The *Plateau of Deccan*, which forms the Indian Peninsula, is a low triangular table-land whose average height is about 1000 feet.

The *Plateau of Iran* consists mainly of salt steppes and deserts, but some of the mountain-valleys are well watered and fertile. The average elevation of the plateau is 5000 feet.

The *Plateau of Asia Minor* has an average elevation of 3000 feet. East of it is the volcanic region of Armenia, whose loftiest peak is Mount Ararat.

The *Peninsula of Arabia* consists of a central mountainous tract, well watered and fertile; a desert belt with oases abounding in date-palms; and a coast region varied by arid plains and highly productive districts.

The *Great Central High Plain* has an average elevation of 4000 feet. The *Desert of Gobi*, a rainless, sandy region, lies within its limits.

Questions.—What does Highland Asia comprise? Describe the Plateau of Thibet. Of Pamir. The Peninsula of Indo-China. The Deccan. The Plateaus of Iran and Asia Minor. Arabia. What is said of the Great Central High Plain? Of the Desert of Gobi?

QUESTIONS ON THE MAP AND TEXT.

Mandeb. On what bodies of water would a vessel sail close to the mainland from East Cape to Cape Romania, and thence to the Black Sea? Locate the gulfs on the coasts of Asia.

Surface.—Why is land-communication difficult between the people of India and the Chinese? Name all the mountains of China. Of India. Of Siberia. Between what mountains does the Desert of Gobi lie? Name the mountains that extend north and south. Where is the Obel lower—in 55° N. or in 65° N. latitude? Why are there so many deserts in Asia? Which is higher land—Northern or Southern Siberia? How high is the Plateau of Thibet? Name the low plains of Asia. The plateaus. The deserts. Three mountain-peaks.

Drainage.—Name all the rivers that flow into the sea at a point north of their sources. Name the rivers that rise in the Himalaya. In the Kuen Lun. In the Altai Mountains. Locate five inland seas or salt lakes. Name five rivers flowing into such waters. Name five rivers that have extensive deltas. Why are the rivers of Siberia less important than those of China?

6. Lowland Asia includes the Plains of Siberia and China, and part of the Aralo-Caspian Interior Basin.

The *Plains of Siberia* consists of steppes, forest-regions, and frozen swamps called *Tundras*. The *Aralo-Caspian Interior Basin* is a vast depression, situated partly in Europe, partly in Asia. The Caspian Sea and the Sea of Aral lie in its lowest levels.

The *Plains of China* is the most densely populated region on the globe. It is well watered, extremely fertile, and cultivated like a garden. It resembles the rich river-plains of India in the strong contrast that it presents to the neighboring barren plateaus.

7. Asia is crossed by a system of mountains that form a continuation of the mountain-system of Europe.

The Asiatic system from the Sea of Marmora to East Cape includes the Taurus, the Caucasus, the Elborz, the Hindu Kush, the Thian Shan, the Altai, the Yablonoi, and the Stanovoi Mountains.

Asia resembles Europe chiefly in these particulars: 1. The principal mountain-system, with its intervening plateaus, extends east and west; 2. North of this system a vast low plain stretches to the Arctic Ocean; 3. South of the system lie three extensive peninsulas with numerous mountain-chains.

8. The giant ranges of the Himalaya, the Karakorum, and the Kuen Lun Mountains stretch eastward from the Plateau of Pamir. The Himalaya are the highest mountains in the world, and Mount Everest, one of their peaks, has the greatest known altitude.

Questions.—What does Lowland Asia include? Describe each section. Name the mountain-ranges from the Sea of Marmora to East Cape. In what particulars does Asia resemble Europe? Name the highest mountains in the world. The highest peak.

Climate.—Why is the Plateau of Thibet so cold? Why is it almost rainless? What marine currents affect the climate of Asia? Which of them is warm? If there were no mountains north of the Chinese Empire, would its climate be warmer or colder? How would mountain-ranges along the Arctic coast affect the climate of Siberia?

Productions and Animals.—Name ten food-plants. What is the food of the people of Northern Siberia? Which can be cultivated farther north—wheat or oats? Buckwheat or barley? Tea or coffee? Rice or the sugar-cane? Name the precious metals and precious stones found in Asia. (Let each scholar name a vegetable, a mineral, or an animal production, tell where it is found, and state its uses. Let the animals of Asia be named in the same manner.)

Population.—How are China and India fitted to support a dense population? If the American Indians were originally of Asiatic stock (as some believe), across what water did their forefathers probably come to America? Why are the people of India less active than the Japanese? What are the chief industries of the Chinese? Of the Persians? Of the Turks? Of the Hindus?



The *Himalaya* have an average elevation of 20,000 feet. At least forty of their peaks are higher than the loftiest summit of the Andes. North of the Himalaya lie cold, sterile plateaus, while south of them spread the rich, fertile plains of India.

The *Karakorum* and the *Kuen Lun* ranges are scarcely inferior to the Himalaya in elevation. The Kuen Lun chain, the northern border of the Plateau of Thibet, is continued to the Pacific coast by the Chinese mountains.

9. The Hindu Kush, the Thian Shan, the Khingan, and the Altai Mountains are lower than the Kuen Lun, yet they are of great height, and many of their peaks are covered with perpetual snow.

Kamchatka, the Kurile Islands, Japan, Formosa, and the Philippine Islands abound in volcanoes; while Asia Minor, Persia, and India bear traces of volcanic action.

10. Drainage.—The rivers of Asia belong to the *Indian Ocean System*, the *Pacific System*, and the *Arctic System*. There are also numerous lakes and rivers that have no outlet to the sea.

The most important rivers are the Euphrates and Tigris, the Indus, the Ganges, the Brahmaputra, and the Irrawaddy; the Cambodia (or Mecon), the Yang-tse-Kiang, the Hoang-Ho, and the Amoor; the Lena, the Yenisei, and the Ob.

Among the rivers that have no outlet to the sea are the Tarim, the Jordan, the Amu (or Oxus) the Sihon, and the Ili.

The Yenisei is the longest river of Asia. The Ganges springs from the glaciers of the Himalaya, 14,000 feet above sea-level. It forms an extensive delta, through which the Brahmaputra also reaches the sea. The annual overflow of the Indian rivers makes India a land of great fertility.

11. There are few fresh-water lakes in Asia, but the Aralo-Caspian Basin and the interior plateaus abound in salt lakes.

The Caspian Sea, the Sea of Aral, the Dead Sea, and Lake Balkash are the most important salt lakes. The Caspian Sea, which is the largest salt lake in the world, is about five times as large as Lake Superior. Its surface is 84 feet below the level of the ocean. The Sea of Aral is a little larger than Lake Michigan. The surface of the Dead Sea (the lowest depression known) is 1300 feet below the level of the ocean. Lake Balkash is a shallow body of water about as large as Lake Ontario.

Lake Baikal is the most extensive fresh-water lake. It is the largest mountain-lake known, and is about half as large as Lake Superior. Sir-i-Kul, a small, deep lake on the Plateau of Pamir, is said to be the highest lake on the globe.

Questions.—What is said of the Himalaya? Of the Karakorum and the Kuen Lun Mountains? Of the Hindu Kush, the Thian Shan, the Khingan, and the Altai? To what systems do the principal rivers belong? What is said of the Ganges? Of the Caspian Sea? Of the Dead Sea? Of Lake Sir-i-Kul?

12. Climate.—As Asia extends from 2° N. of the Equator to a latitude midway between the Arctic Circle and the North Pole, and presents, besides, unequaled diversity of surface and soil, it has every variety of climate.

The Plain of Siberia has long severe winters, and short summers with days of intense heat. Central Asia, between the Altai and the Himalaya Mountains, has the climate of the Temperate Zone, and is subject to extremes of heat and cold. In Thibet the great elevation makes the country so cold as to be almost uninhabitable. The southern peninsulas and the western plateaus have, in general, a tropical climate.

The plateaus of Arabia, Iran, Thibet, The Deccan and the Great Central High Plain are, in general, rainless. The mountains south and west of these regions rob the sea-breezes of their moisture, and render the country dry and sterile.

The southern part of China, India, and the south-east coast of Arabia lie in the region of the south-west monsoons, and have abundant periodical rains. The Khasi Hills (100 miles N. E. of Calcutta) have the greatest rainfall in the world.

Eastern China, Pamir, the Thian Shan, the Caucasus, Asia Minor, and other western regions have variable rains according to the variable winds of the Temperate Zone. Taken as a whole, Asia has less rain than Europe or America.

13. Productions and Animals.—The great variety of climate produces a corresponding variety of vegetation, and most of the food-plants and fruits of the world are natives of Asia.

Here originated wheat, rye, rice, barley, oats, buckwheat, and the sugar-cane; and here is the home of the grape, the peach, the melon, the apricot, the apple, the pear, the plum, the orange, the date, the fig, the olive, the cherry, the almond, the bread-fruit, the cocoa-nut, the banana, the sweet potato, and the yam.

Tea, cotton, hemp, flax, and jute also are natives of Asia. Palms, bamboos, and banyans, teak, ebony, and sandal-wood, abound in the tropical forests; and camphor, gum-arabic, and india-rubber, with the greatest variety of spices, gums, resins, and medicinal plants, are among the most valuable productions.

Gold, silver, copper, iron, tin, mercury, nickel, coal, petroleum, salt, and sulphur are found in abundance, while diamonds, rubies, sapphires, topazes, and pearls of great beauty make Asia unrivaled among the Grand Divisions in natural wealth.

The camel, the Cashmere goat, and the yak are natives of Asia. The elephant, the lion, the tiger, the leopard, the panther, the rhinoceros, the hyena, the buffalo, the zebu, the peacock, the ostrich, and the golden pheasant are found in various parts.

Questions.—Why has Asia such variety of climate? What is said of the climate of the various sections? Of the rainfall? What effect on vegetation has the variety of climate? What plants are natives of Asia? What minerals abound? What precious stones? What animals are natives of Asia?

14. Inhabitants.—Of all the Grand Divisions, Asia has the largest population, and presents the greatest diversity of race, religion, manners, and civilization. The inhabitants number about 823,000,000.

Asia is regarded as the cradle of the human race, and its civilization is the oldest in the world. Within its limits the principal religions of the world originated. Buddhism, Brahminism, and Mohammedanism are now the prevailing forms of belief. A majority of the people belong to the Mongolian race; but a large number, including the Hindus, the Arabs, the Persians, and the Afghans, are Caucasians. Malays inhabit the Malay Peninsula.

POLITICAL DIVISIONS.

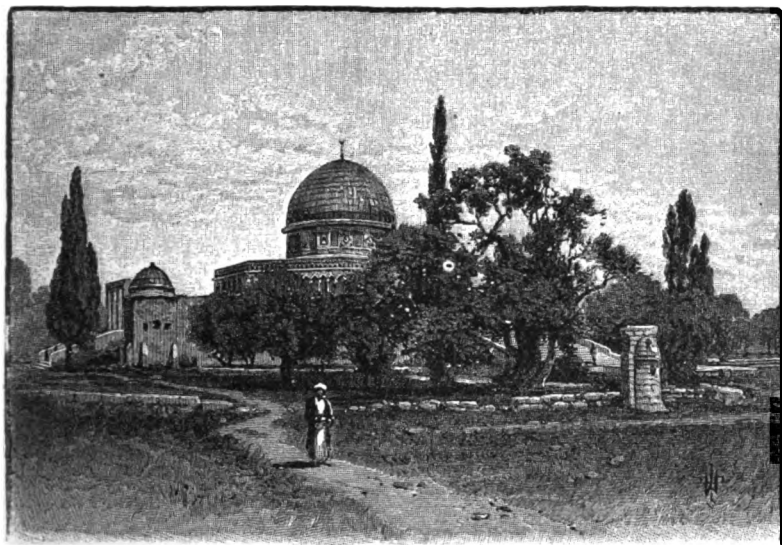
15. Asia includes within its boundaries a large part of the *Turkish and Russian Empires*, the capitals of which are in Europe; the *Chinese Empire* and its *Dependencies*; the *Empire of Japan*; *Corea*; the several States of *India* and *Indo-China*, some of which are independent and the others more or less under the control or protection of European powers; the confederation of *Beluchistan*, *Afghanistan*, *Persia*, and the several powers of *Arabia*.

ASIATIC TURKEY.

16. Asiatic Turkey is a part of the Ottoman Empire.

On account of its prominence in history, it is one of the most interesting countries on the globe. It contains the ruins of many of the most powerful cities of ancient times, and is full of places which are connected with important events.

17. Towns.—The principal commercial city is Smyrna, from which fruits, rags, and various other articles are exported. Mocha exports large quantities of coffee.



THE MOSQUE OF OMAR AT JERUSALEM.

18. SYRIA (one of the provinces) includes Palestine, or the Holy Land, in which most of the events recorded in Scripture took place.

Jerusalem is the holy city of the Jews, and, to the Christian, is one of the most interesting places in the world. Mecca is the holy city of the Mohammedans.

ASIATIC RUSSIA.

19. Asiatic Russia comprises more than one-third of Asia. The principal divisions are Siberia, Trans-Caucasia, and the Trans-Caspian Territory.

The island of Saghalin belongs to Russia, and the Russian possessions in Asia have greatly increased in extent during the past few years. The Kirghis country, the northern part of the Amoor Basin, a small part of Sungaria, and the Trans-Caspian Territory have lately come under Russian control.

Questions.—What is said of the inhabitants of Asia? Of the religions? Name the political divisions. Of what empire is Asiatic Turkey a part? Which of its provinces includes Palestine? What is said of Jerusalem? Mecca? What are the principal divisions of Asiatic Russia? What is said of the increase in its extent?

20. SIBERIA occupies the entire northern part of Asia. Owing to the severity of the climate, much of this immense region is unfit for extensive settlement; yet its mines of gold and silver, and its fur-bearing animals, render it of great value to Russia.

21. Inhabitants.—About three-fourths of the population are Russians. The remainder consists of native tribes.

Siberia has long been used by the government as a place of banishment for exiles and criminals, and these and their descendants form most of the population.

22. Towns.—Tashkend, Tomsk, Tobolsk, and Irkutsk are the largest towns.

Kiachta, in Siberia, and Maimatchin, in China, are places where an immense inland trade is carried on between China and Russia.

23. TRANS-CAUCASIA is south of the Caucasus Mountains. Tiflis, the capital, has a large caravan trade. The inhabitants, a vigorous, handsome race, are principally engaged in agriculture.

24. THE TRANS-CASPIAN TERRITORY includes the Turkoman country, or West Turkestan (Khiva, Bokhara, Merv), and a small part of Sungaria.

The various States of West Turkestan are called Khanates, each of which has a native ruler, or Khan. All of these States are more or less subject to Russia, and Russian influence is supreme throughout most of Central Asia.

In the south, the inhabitants are engaged in agriculture; but the wandering tribes, in the north and west, subsist by war and the chase, and their chief wealth is in their immense numbers of camels, horses, sheep, and goats.

25. Towns.—Bokhara, Khokan, and Khiva are each the capital of a State, or Khanate, of the same name.

THE CHINESE EMPIRE.

26. The Chinese Empire includes China proper, Manchuria, and the subject countries Thibet, Mongolia, and Eastern Turkestan, in which is included the greater part of Sungaria.

China proper has nineteen-twentieths of the whole population of the empire. Manchuria is called "Crown-Land," as it is the birthplace of the imperial family and of the dominant race.

So dense is the population in some districts that great numbers of the inhabitants dwell constantly upon boats on the rivers, or on rafts on the lakes, which they convert into gardens by covering them with earth.

The Chinese are a very industrious people, and, to improve their condition, great numbers emigrate to other countries. Thus, they are very numerous in Farther India, in the islands of Malaysia and Australasia, and considerable numbers of them have even found their way to California, and other parts of our Pacific Slope.

Great attention is given to education, and learning is rewarded by honorary titles and by lucrative government offices. Nearly every man can read and write, and no one can hold public office without first passing a creditable examination.

27. THIBET is only under the supervision of the Chinese government. Lassa is the capital and the residence of the Grand Lama, who is worshiped as the representative of the Supreme Being.

28. MONGOLIA is occupied by pastoral tribes, whose chiefs, in most cases, own only a nominal subjection to China.

29. EASTERN TURKESTAN was a province of China until 1865, when it established an independent government. It was reconquered by China in 1877, and now forms a part of the empire, with a special political organization.

Sungaria, lying between the Thian Shan and Altai Mountains, is important on account of being the gateway of the caravan trade between Eastern and Western Asia. About one-tenth of this country has lately been added to the Russian possessions.

Questions.—Describe Siberia. Name the principal towns. Where is Trans-Caucasia? Name the capital. Of what does the Trans-Caspian Territory consist? Name the divisions of the Chinese Empire. What is said of the population? Of the character and education of the Chinese? Of Thibet? Of Mongolia? Eastern Turkestan? Sungaria?

30. Productions.—The most important productions are rice, millet, tea, and silk.

Rice and millet are the chief articles of food for the entire population. Tea, silk, and porcelain are the principal exports. There are valuable mines of iron, coal, copper, and gold. The Chinese work with exquisite skill in ivory, wood, and pearl, and make the most beautiful porcelain and silk.

31. Government.—The government is an absolute monarchy. The emperor possesses unlimited power over all beneath him, and claims the title of "Son of Heaven."

The officers of government are styled *mandarins*. The laws are severe; for trifling offences, punishment with the bamboo is inflicted, while serious crimes are almost always punished by death.

32. Towns.—China contains many great cities, most of which, however, are known to Europeans only by name. Peking is the capital and the largest city.

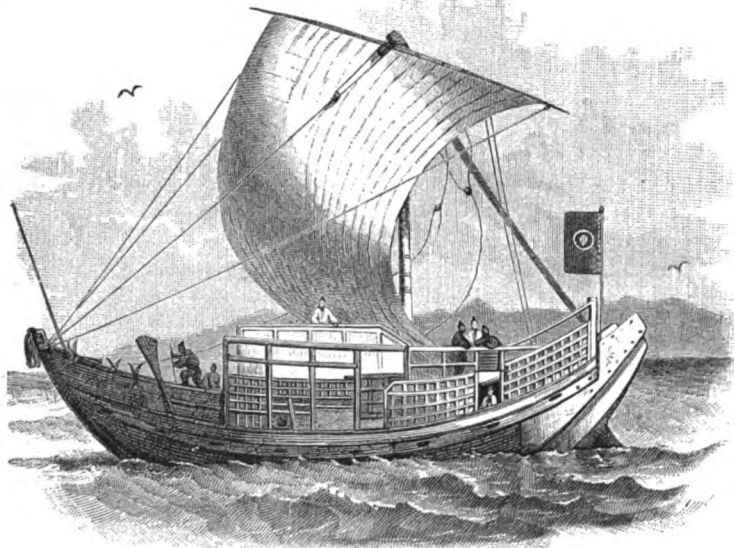
Shanghai and Canton are the chief centres of the foreign trade. Ningpo, Foo-chow, Nankin, and Amoy are the other most important ports. Until very recently, these were the only seaports open to foreign trade. By late treaties, however, all of China is open to the intercourse of foreign nations.

Hainan and Formosa are Chinese islands. Hong Kong belongs to the British, to whom it was ceded in 1843. Macao belongs to the Portuguese. It was granted to them 250 years ago, for assistance in clearing the coast of pirates.

33. COREA is a kingdom which was tributary to China before 1876, but is now entirely independent, having its own sovereign and its own laws. Seoul, or King-ki-tao, is the capital.

THE EMPIRE OF JAPAN.

34. The Empire of Japan embraces the islands of Hondo or Nippon, Kiushiu, Shikoku, Yezo, the Kurile Islands, and nearly four thousand smaller islands.



A JAPANESE JUNK.

All these islands are mountainous and subject to frequent earthquakes. The Liu Kiu Islands also belong to Japan. The Japanese call their empire Dai Nippon ("Great Japan"), and their emperor the Mikado. Great attention has recently been given to education, and many Japanese young men are educated at the expense of their government in the United States and in Europe.

35. Productions.—The principal productions are rice, tea, silk, wheat, barley, tobacco, camphor, and copper.

The country is rich in minerals, gold, silver, copper, and iron being abundant. "Japauning" (or covering metals with varnish) derives its name from this empire.

Questions.—What are the most important productions of China? What is the government? Name the capital. The principal seaports. To whom does Hong Kong belong? Macao? Describe Corea. Which are the principal islands of Japan? What other islands belong to Japan? What are the chief productions?

36. Towns.—Tokio is the capital and largest city. Osaka, Kioto, and Nagoya are populous cities. Yokohama, Kagoshima, Nagasaki, and Hakodate are the principal ports for foreign trade. Yokohama is a splendid city, at which several lines of steamers call.

The Japanese were formerly very jealous of foreigners, and the government permitted but little intercourse with other nations. The United States and sixteen other nations now have treaties with Japan, and several thousands of their citizens live in the various ports of the Empire.

INDIA AND INDO-CHINA.

37. India consists of two peninsulas: Hindustan, with the Deccan, and Indo-China, or Farther India.

Both peninsulas are remarkable for the fertility of the soil, and yield, in great abundance, the products of the tropical regions in which they are situated.

38. Climate.—The climate of India is greatly influenced by the *monsoons*, or periodical winds which prevail in the Indian Ocean.

These winds blow from the north-east from October to April, and from the south-west during the remaining months of the year. On the western coast, the south-west monsoon brings the rainy season, and the north-east, the dry season. On the eastern coast, on the contrary, the rains occur during the north-east monsoon, and the dry season during the south-west, the winds in each case bringing the rain from the neighboring bodies of water.

39. Productions.—The most important productions are rice, cotton, and wheat. Rice forms the principal food of the natives, and almost their entire clothing is made from cotton.

The other chief exports are tea, indigo, opium, sugar, shawls, carpets, silk, and various drugs, spices, and perfumes. The tea trade is important, and is rapidly increasing.

40. Animals.—The most remarkable animals are the elephant, rhinoceros, tiger, and a huge serpent called the python.

The Royal Bengal tiger is the largest, fiercest, and most beautiful of the tiger species. Elephants are used in tiger-hunting, which is a favorite amusement in India.

41. The Hindus are divided into four castes or classes, according to their occupation; as the priest, soldier, merchant, or laborer. The pariahs are the outcasts of these classes.

The son inherits the occupation of his father from one generation to another. The male members of one caste may legally marry into a caste below their own, but not into one above. There is no distinction of caste in the countries of Farther India, and in British India it is not so rigidly observed as formerly.

42. BRITISH INDIA.—Nearly the whole of the western peninsula (Hindustan and the Deccan) and the north-western part of Indo-China belong to, or are tributary to, Great Britain.

These countries were long subject to the East India Company, but, in 1858, their territories were transferred to the Crown. The British, however, who rule this vast region, form but a small part of the population. The French and Portuguese have some small settlements upon the coast.

43. In Indo-China, the British possessions include Lower Burmah and the protectorate established over some small Malay States, which, with the islands of Penang and Singapore, constitute the territory called *The Straits Settlements*.

The kingdom of Upper Burmah is now partially conquered by the British, who claim entire possession of the country. They also possess Ceylon, a fine, populous, fertile island, and the Laccadive and Maldive Islands, which are of coral formation and but thinly inhabited.

These territories, in both Hindustan and Farther India, are known under the general name of *British India*. They have a government similar, in some respects, to that of the Dominion of Canada, and are under the control of the Governor-General, who resides at Calcutta. The Queen of England is also "Empress of India."

Questions.—Name the capital of Japan. The principal ports for foreign trade. Name the two peninsulas of India. What are the monsoons? What effect have they upon the climate? Name the chief productions of India. The exports. Some of the animals. What is caste? What does British India include?

44. Towns.—India contains many important cities. Calcutta, the capital, is a very large city, and the seat of an extensive trade.

Bombay and Madras are next in commercial importance. Benares is the seat of Hindu learning. Pondicherry is the capital of the French possessions in Hindustan, and Goa of those belonging to Portugal. The larger cities of India are connected by railroads, which have greatly increased and developed the inland trade.

Rangoon is the most important town of Lower Burmah, and famous for its golden pagoda. Singapore, at the southern extremity of the Malay Peninsula, is remarkable for its situation and its trade. Mandalay was formerly the capital of Burmah, but is now controlled by the British.

45. INDEPENDENT STATES.—Among the mountains forming the northern boundary of India are several States which are not under the control of European Powers.

Kafiristan is a very mountainous country lying north of Afghanistan, between the Russian and the English possessions. This State, in connection with a part of Pamir, is independent, and inhabited by the *Siah Posh*, a remarkable race resembling the inhabitants of Europe. The Mohammedans have many times invaded, but never conquered, these countries.

Kashmir, *Nepal*, *Bhotan*, and *Sikkim*, on the northern slope of the Himalaya Mountains, are independent States. Kashmir is the most important, and is an exceedingly fertile country. Srinagar is the capital.

Many of the States of Hindustan, such as *Hyderabad*, *Mysore*, etc., are nearly independent. They pay an annual tribute to Great Britain under guarantee of protection. Many other States, besides paying tribute, place a force of natives at the disposal of the British to resist a common enemy.

46. Besides Burmah and the other British possessions, Indo-China comprises the *Kingdom of Siam*, with its tributaries, and the *French Possessions*, which include *Lower Cochin-China*, *Tongking*, and the protected kingdoms of *Cambodia* and *Annam*.

Little is known about Siam except that it is a rich and fertile country, to which are tributary some States of the *Malay Peninsula* and part of the *Shan Tribes*, who live in Central Indo-China. Bangkok, the capital, is a floating city; for many of the houses are built upon rafts, which line both banks of the great river Meinam (*may-e-nahm'*) for several miles.

The most important cities of the French possessions are Hanoi or Kesho, in Tongking, and Saigon, in Lower Cochin-China. The latter is an important, well-built, and populous city, and one of the principal seaports of the Indies. Udong is capital of Cambodia, and Hue of Annam.

AFGHANISTAN AND BELUCHISTAN.

47. The greater part of this region is mountainous and barren, though there are many fertile valleys.

The inhabitants of the barren regions generally lead a nomadic life, and are rude, turbulent, and warlike. The fertile portions are occupied by a settled population, and contain several large cities.

48. Towns.—Cabul is the capital of Afghanistan, and Herat is the principal city. Kelat is the capital and largest city of Beluchistan, which is a confederation of Khanates.

PERSIA.

49. The table-land which forms the greater part of Persia is dry and barren, and subject to great extremes of heat and cold; but the mountain-valleys, and other well-watered tracts, are exceedingly fertile.

50. Productions.—The natural productions are fruits, grain, rice, cotton, assafœtida, and the vine.

The people are very skillful in the making of various silk and cotton fabrics, shawls, carpets, leather, and perfumery.

Questions.—Name the principal cities in British India. Describe the Independent States. Those which are partially independent. What is said of Siam? Of the French Possessions? Name the important cities. Describe Afghanistan and Beluchistan. Of what does the latter consist? What is said of Persia?

51. The government of Persia is a despotic monarchy. The sovereign is called the Shah.

The chiefs of the warlike mountain-tribes, and other unsettled portions of the population, are but little dependent on the royal authority.

52. Towns.—Teheran is the capital. Tabreez, Meshid, and Ispahan are important cities. Bender-Bushire is the principal seaport.

The British government, as the result of hostilities with Persia in 1856 and 1857, may be said to have the control of the Persian Gulf, having gained a station at Bender-Bushire and several other places on the coast.

ARABIA.

53. The greater part of Arabia is a desert plateau. In the interior, however, are ranges of low mountains and many fertile valleys. There is also a fertile belt of low plains along the coast.

The principal productions are dates, figs, and other fruits, spices, coffee, and aromatic gums. Pearls are obtained in great numbers in the Persian Gulf.

The camel, which affords almost the only conveyance for goods and passengers across the desert, is the most important animal. The Arabian horses are celebrated for their beauty and speed, and are regarded by their owners with great affection.

54. Arabia has never been subject to one sovereign, but the Turkish Empire has a religious and semi-political power along the western coast in Hedjez and Yemen, where Mecca and Medina, the sacred cities of the Mohammedans, are situated.

Arabia includes three principal powers—Shomer and Nejed, which have a fertile soil, a settled population, and some well-built towns and cities, and the Sultanate of Oman, which includes the eastern and southern part of the peninsula, portions of the Persian Gulf coast, and some districts on the coast of Beluchistan.



A BEDOUIN ENCAMPMENT.

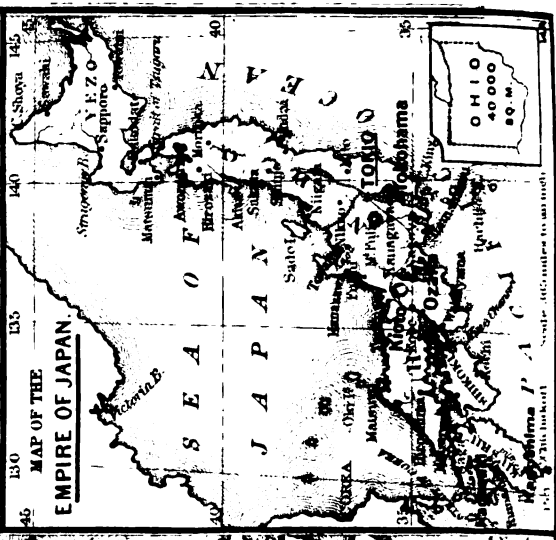
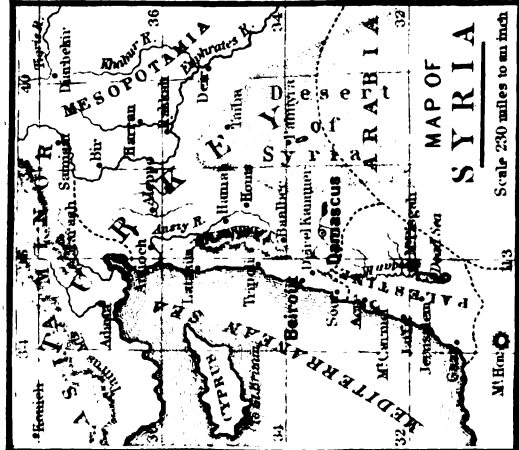
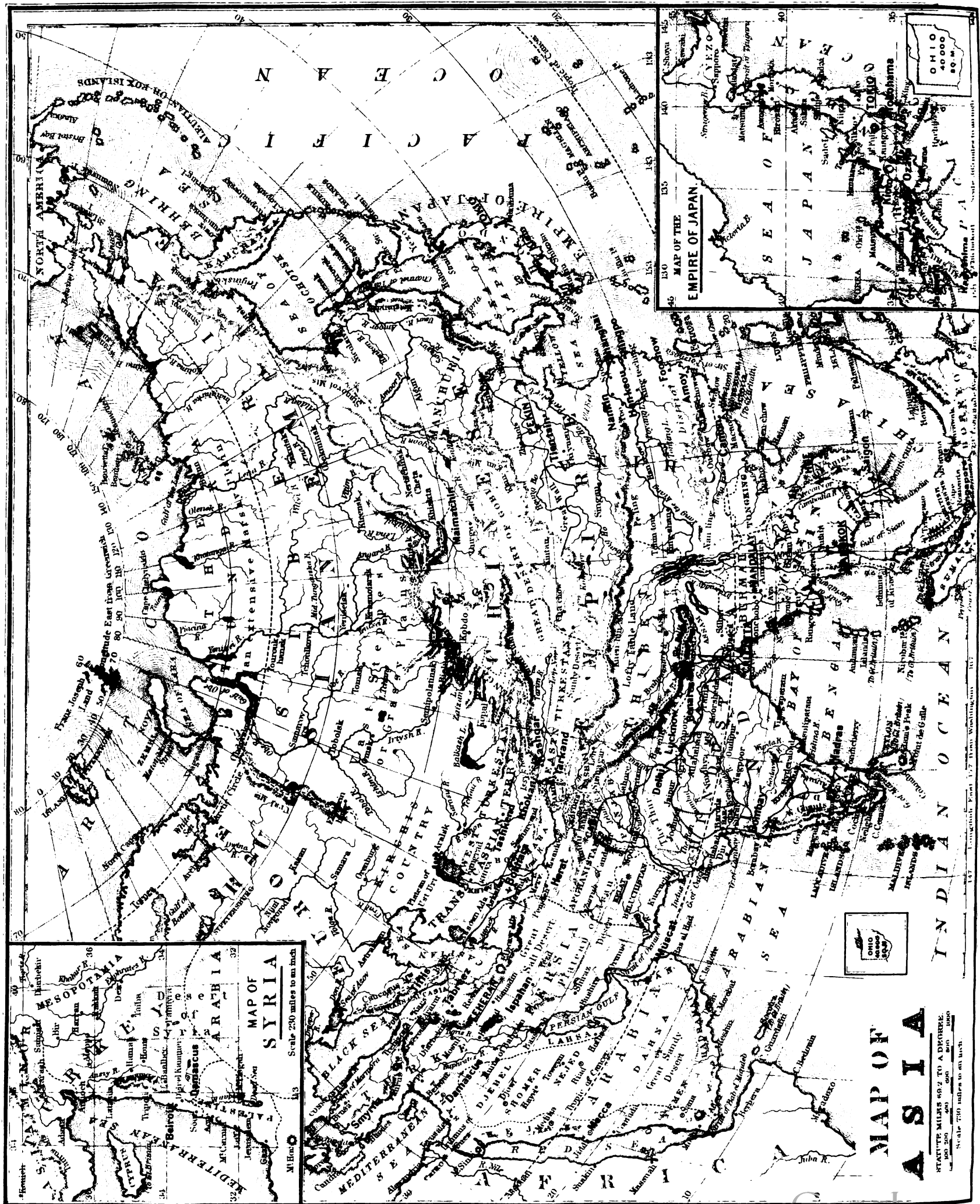
55. Inhabitants.—A large part of the population are inhabitants of the desert, styled Bedouins, who look with contempt upon the dwellers in the towns.

The Bedouins are a wandering people, devoting themselves to the care of their camels, horses, goats, and sheep. They are generous and hospitable, but quarrelsome, revengeful, and addicted to plunder.

56. Towns.—Muscat is the largest and most important city. Hayel and Riad are the principal inland towns. Riad is the capital of Nejed.

Muscat is a walled city, and has a good harbor well protected by forts. It is the commercial emporium for Persia and Arabia, and is the center of the pearl trade. Aden belongs to Great Britain.

Questions.—What is the government of Persia? Name the capital. The other important places. What parts of Arabia are fertile? What are some of the productions? What is said of the government? Of the inhabitants? Of the Bedouins? Name the most important towns. To whom does Aden belong?



MAP OF ASIA

Scale 1:100,000,000
STATUTE MILES 400 TO A DEGREE
Scale 1:100,000,000

Outline.

Do the seas, gulfs, and bays of Asia penetrate farther into the land than those of Europe? Where does Asia approach nearest to America? What ocean on the north of Asia? On the east? On the south? What sea and two gulfs on the Arctic coast?

Name the five seas on the eastern coast of Asia. What group of islands is south of the most northern of these seas? What peninsula, island, and group of islands partially enclose the Sea of Ochotok? Through what strait can you pass from this sea into that of Japan? Through what channel? What islands are southeast of the Sea of Japan?

Name the strait connecting the Sea of Japan with the Yellow Sea. The Yellow with the China Sea. China Sea and the Bay of Bengal. What islands south-east of the Yellow Sea? East of China Sea? Name all the straits and seas through which you would sail to go from the Sea of Ochotok into the Bay of Bengal.

By what channel may the China Sea be entered from the Pacific Ocean? The Sea of Japan? By what strait can the Arctic Ocean be entered from Behring Sea?

What large bay and sea are south of Asia? What gulf between Persia and Arabia? By what strait is this gulf entered from the Arabian Sea? Name the four seas forming a part of the western boundary of Asia. By what strait is the most southern of these connected with the ocean? Which of these four seas has no connection with the ocean? Where is the Sea of Aral?

What Grand Division forms a part of the western boundary of Asia? What isthmus connects Asia and Africa? What is the most northern cape of Asia? The most eastern? The most southern?

What peninsula lies between Behring Sea and Sea of Ochotok? between the Sea of Japan and the Yellow Sea? China Sea and the Bay of Bengal? The Gulf of Siam and Strait of Malacca? The Bay of Bengal and Arabian Sea? The Persian Gulf and Red Sea? The Black and Mediterranean Seas?

In what ocean are the islands of Nova Zembla and New Siberia? Where is the island of Formosa? Hainan? Hong Kong? What two groups of islands in the Bay of Bengal? In the Arabian Sea? Where is Ceylon? Cyprus?

Surface.

With what range, upon the west, does the principal mountain-system of Asia commence? With what does it terminate at the extreme north-east? In what direction, then, does this system extend? What mountains form the western boundary of Siberia?

Name the chains, in their order, from the west to the Plateau of Pamir. Into what four chains, at that point, does the system divide? What mountains form a continuation of the Himalaya chain to the Pacific coast? Of the Kuen Lun chain? The Altai chain? Where are the Soliman Mountains?

Name the mountain-ranges forming the southern chain of this system from the China Sea to the Mediterranean. What peninsulas extend southward from this chain? Is the surface of these peninsulas generally mountainous, or level?

Between what mountain-chains is the Plateau of Thibet? What mountain-chains bound The Deccan? Locate the Plateau of Pamir. The Plateau of Asia Minor. The Thur. The Great Salt Desert. Dakhna Desert. Where is Lowland Asia?

Rivers and Lakes.

Into what three systems may the principal rivers be divided? To which system do the lakes and rivers of Siberia belong? In what direction in that country does the land slope? How do you know that fact? Describe the course of the Obe, the Yenisei, and the Lena. Into what river does Lake Baikal flow?

What country is drained by the Amoor River? Into what body of water does it flow? What are the two principal rivers of China? In what general direction do they flow? Into what sea? What is the general course of the rivers south of the southern mountain-chain?

Name the four principal rivers of Indo-China. What two rivers flow into the head of the Bay of Bengal? Into what sea does the Indus flow? Into what gulf the Euphrates? Two large rivers empty into the Sea of Aral: name them. Do their waters flow thence into the ocean? Name two other rivers of Asia which flow into lakes or inland seas not connected with the ocean.

Asiatic Turkey.

By what waters are the coasts of Asiatic Turkey washed? What mountains cross the surface of the country? Where is Mt. Ararat? Where is the table-land? By what rivers is the south-eastern part drained? Where is Jerusalem? Smyrna? Name the exports of Smyrna. Where is Mecca? Mocha? What is said of these places?

Asiatic Russia.

In what part of Asia is Siberia? Is Siberia a cold or a warm country? What are some of its productions? To whom does the island of Saghalin belong? What is said of Kiachta and Maimaitchin? What inland sea north of Khiva? Locate the Tundras. The Steppes. Where is Yakutsk? Irkutsk?

The Chinese Empire.

Name the divisions of the Chinese Empire. Where is Thibet? Mongolia? Eastern Turkestan? Sungaria? Corea? Which is the most populous section of the Chinese Empire?

What part of China has a tropical climate—the northern or the southern? Where is the capital? Locate the five principal seaports. To what country does Hong Kong belong? Macao?

The Empire of Japan.

What sea between Hondo and the mainland? By what straits may vessels enter it? What sea west of the Kurile Islands? Where is Mount Fuji? Name and locate the principal seaports. Where is Sapporo? Osaka?

India and Indo-China.

Is India chiefly highland or lowland? What is the general character of the climate and productions of India? What can you say of the monsoons?

What is the principal food of the natives? Of what is their clothing made? Name the chief exports. The most remarkable animals. To what race do the Hindus belong? What is the prevailing religion?

To what European Power does the greater part of India belong? Where is the capital of British India? Where is Kafiristan? Kashmir? Siam? Cochinchina? Tongking? Cambodia? Annam? Where is Bombay? Madras? Goa? Pondicherry? Lucknow?

Where is Mandalay? Ava? Bangkok? Saigon? Hue? Rangoon? Singapore? Ship a cargo of opium from Calcutta to Canton: what article is likely to be sent in return? Through what strait will both voyages be made? What town at one end of that strait?

Afghanistan, Beluchistan, and Persia.

By what plateau is most of this region occupied? What mountains on the north? What is the character of the soil and the climate of the table-land? What parts are fertile? Where is Cabul? Candahar? Kelat? Herat? Teheran? Isfahan? Bender-Bushire? What can you say of each?

Arabia.

Describe the surface. Name the productions. Where are the possessions of the Sultan of Muscat? Where is Muscat? Riad? What is said of them? Where is Aden?

Miscellaneous.

Freight a vessel at Canton for New York, and tell the articles you would ship. Name the bodies of water on which you would sail going from Suez to Bombay. In what country of Asia are the people divided into castes? Where is the Great Desert of Gobi?

In what country does the Grand Lama reside? Which is the holy city of the Mohammedans? With what would you freight a vessel at Mocha for Philadelphia? At Smyrna for Boston? Caravans of camels are used for carrying tea from Peking to Maimaitchin: what desert do they cross?

Bound Asia. Sketch a map of Asia, and locate the mountain-chains and rivers. Spell Hindustan. Yang-tse-Kiang. Formosa. Himalaya. Baikal. Euphrates. Singapore. Saghalin. Ochotak.



PHYSICAL FEATURES.

POSITION.—Africa is the south-western division of the Eastern Continent. It is in the North Temperate, Torrid, and South Temperate Zones.

It extends from 37° N. to 35° S. latitude, and from 52° E. to 17° 30' W. longitude.

2. Size.—Africa ranks next to Asia in size. It occupies about two-ninths of the land-surface of the earth, and is more than three times as large as Europe. Its area is nearly 12,000,000 square miles.

Its breadth is 4700 miles, and its length 5000 miles. The length of its coast-line is 16,200 miles, which is less, in proportion to the area of the country, than that of any other Grand Division.

3. Outline.—The outline is very regular; there are no gulfs, bays, or border-seas penetrating far into the land and forming extensive peninsulas, as in Europe, Asia, and North America.

Madagascar is the only large island on the coast. It is one-eighth larger than France. The islands west and north-west of Africa are of volcanic formation.

Attached to Asia only by the narrow Isthmus of Suez, Africa is, naturally, a peninsula—the largest in the world; but the Suez Canal has left a strip of Egypt still connected with Asia, and made of the rest of Africa an immense island.

Questions.—How many degrees of latitude does Africa comprise? Of longitude? Which Grand Divisions are smaller than Africa? What is said of its coast-line? Of Madagascar? Of the islands west and north-west of Africa? Of the Suez Canal?

Position.—In what direction is Africa from North America? From South America? From Europe? From Asia? From Australia? What circles cross it? What countries are crossed by the meridian of Greenwich? By the Equator? By the Tropic of Cancer? By the Tropic of Capricorn? How many degrees of latitude does the Torrid Zone occupy in Africa? The North Temperate Zone? The South Temperate Zone? When it is noon in Greenwich, what o'clock is it at Cape Verd (17° 30' W.)? At Port Said (32° E.)? At Monrovia (11° W.)? What city in Africa is in the same latitude as New Orleans (30° N.)? Which extends farther south—Africa or South America? Farther north?

Size.—How wide is Africa at the Equator? At the Tropic of Cancer? On parallel 10° N.? What is its length on meridian 20° E.?

Outline.—Locate Cape Verd. In what direction is it from Cape Guardafui? Give its latitude. Name all the waters on the coast of Africa. The islands. What bodies of land are separated, and what bodies of water are connected, by the Mozambique Channel? The Strait of Bab-el-Mandeb? The Strait of Gibraltar?

4. Surface.—Africa is a vast plateau of moderate elevation, surrounded by mountains which either descend abruptly to the sea or leave narrow coast-plains. The highest mountains lie near the eastern coast.

5. The main forms of relief are the *Northern*, the *Southern*, the *Eastern*, and the *Western Highlands*; the *Sahara*, the *Nubian Desert*, and the *Lake Region*; the *Interior Basins*; the *Western Saharian Depression*, the *Chotts Region*, and the *Hawash Basin*.

The *Northern Highlands* has an average elevation of 3000 feet. It includes the Atlas Mountains, some of whose peaks are 12,000 feet high. The *Southern Highlands* is surmounted by the Snow, the Kahlamba or Draken, and the Matopo Mountains. Its average elevation is from 4000 to 5000 feet, and its greatest height is 10,000 feet.

The *Eastern Highlands* includes the Plateau of Abyssinia, which is 7000 feet high, and the mountains of the eastern coast, in which are the snow-topped volcanoes, Kilima-Njaro and Kenia, the highest peaks in Africa. The *Western Highlands* contains the Kong Mountains and the Cameroons, which are volcanic peaks.

6. The Sahara is a broad plateau extending from the Atlantic Ocean to the Nile Valley. It may be regarded as the western end of a desert belt that stretches across the Eastern Continent from the Atlantic Ocean nearly to the Pacific.

Questions.—Is Africa chiefly highland or lowland? What are the main forms of relief? Describe the Northern, the Southern, the Eastern, and the Western Highlands. What is said of the Sahara? Is it highland or lowland? Where are the oases?

QUESTIONS ON THE MAP AND TEXT.

Surface.—Locate the Barca Plateau. The Saharian Highland. The Western Depression. The Hawash Basin. Where is the Plain of Guinea? Which is lower—Khartoum or Cairo? Where is the Desert of Kalahari? Between what river-basins does it lie? Is Africa chiefly highland or lowland? Where is the Lake Region? Which is higher—the Eastern or the Western Highland? The Northern or the Southern? Through what mountains does the Congo flow? The Niger? The Zambesi? Name all the mountain-chains north of the Equator? All south of the Equator.

Drainage.—What rivers flow into the Atlantic? Into the Indian Ocean? What river flows into the Mediterranean? Name three of its tributaries. Of what lakes is it the outlet? Is Cairo on its right or on its left bank? If Egypt is rainless, how is the Nile flooded annually? Of what lakes is the Congo the outlet? The Zambesi? What rivers have their course wholly in the Torrid Zone? Partly in the Torrid Zone? What river has its course wholly in the South Temperate Zone? What lake has no known outlet? What two rivers have no outlet to the sea? Which is north

It occupies one-fourth of Africa, and has an average elevation of 1500 feet; some of its regions are 5000 feet high, and its lowest depressions are below sea-level. The *oases*, which are the only habitable parts, are in the depressions on the borders and around the mountains.

The *Lake Region* is a plateau, parts of which are 4500 feet high. The *Northern* and the *Southern Interior Basins* are, respectively, 1000 and 3000 feet high. The *Western Saharian Depression* at its lowest points is only twenty or twenty-five feet above sea-level. The *Chotts Region*, the *Hawash Basin*, and some oases in Northern Egypt are below sea-level.

7. Drainage.—The principal rivers are the *Nile* (the longest river in the world), the *Congo*, the *Niger*, the *Zambesi*, the *Senegal*, and the *Orange*.

The *Nile Basin* ranks next to the Amazon Basin in size. Below the mouth of the Atbara, 1700 miles from the sea, the Nile has not a single tributary. Its head-waters are all within the region of abundant periodical rains. In June, July, and August the tributaries are flooded and descend in torrents to the main stream, inundating Egypt; in October, when the waters subside, the rich alluvial soil washed down from the tropical highlands and deposited upon the banks of the Nile is ready for the work of the sower. Without the Nile and its overflow, Egypt would be a desert.

The *Congo*, the *Niger*, and the *Zambesi* are among the largest rivers in the world. Each of them drains a territory larger than any river-basin in Europe. The Congo is said to discharge into the Atlantic Ocean three times as much water as the Mississippi.

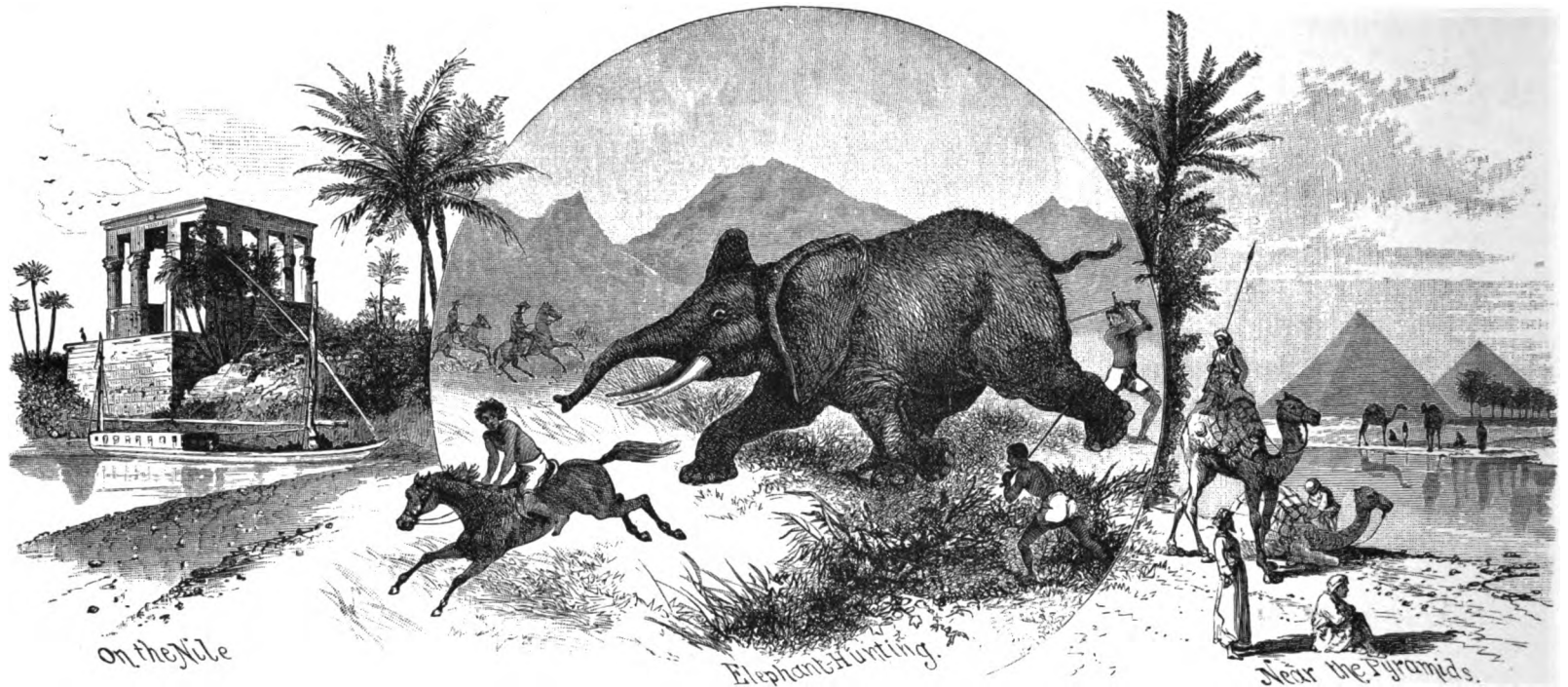
Questions.—What is said of the Lake Region? Of the Interior Basins? Of the Western Saharian Depression? Of the Chotts Region and the Hawash Basin? Name the principal rivers. Describe the Nile Basin. What is said of the other rivers?

of the Equator—the head or the foot of Victoria Nyanza? In which direction do the waters of Lake Nyassa flow? Of Albert Nyanza? Of Lake Tchad?

Climate.—What is the climate of Northern Africa? Of Central Africa? Of Southern Africa? What marine currents flow along the coasts? Are they warm currents or cold currents? Why is the coast of Africa at the Equator hotter than Quito? Why do the south-east winds bring moisture to tropical Africa? Why are the north-east winds dry? Why is there more rain on the coast of Guinea than there is in the interior?

Productions and Animals.—What grains grow in Africa? What other food-plants? What domestic animals are found in Africa? What minerals? What animal products are valuable? (Let each scholar name an animal, a vegetable, or a mineral, and tell where it is found; or an animal product, and state its uses.)

Population.—Name the countries inhabited chiefly by negroes. By native whites. By European colonists and traders.



8. The largest lakes in Africa are Victoria Nyanza, Albert Nyanza, and Albert Edward Nyanza (sources of the Nile), Lakes Tchad, Tanganyika, Nyassa, Moero, Bangweolo, Tzana (Dembea), and Ngami.

Victoria Nyanza is, with the exception of Lake Superior, the largest fresh-water lake in the world. Lake Tchad, which is larger than Lake Erie, has no known outlet, although it is a fresh-water lake. Lake Tanganyika flows into the Congo through the Lukuga River. Lake Nyassa, discovered by Dr. Livingstone in 1859, is larger than Lake Ontario. Lake Tzana, on the Abyssinian Plateau, at the head of the Blue Nile, is the highest lake, and Lake Tchad is the lowest.

9. **Climate.**—Africa is the hottest and driest of the Grand Divisions. The climate of the coast regions is, in general, unhealthful.

In the country between 15° N. and 20° S. latitude, there are copious rains during six months in the year. The rest of Africa is rainless, except on the Mediterranean shores, on the mountains, and in areas supplied with moisture by ocean-breezes. Snow seldom falls on the lowlands.

The Sahara is the largest rainless region of the globe. The north-east winds that blow over it have left their moisture on the highlands of Asia, and the winds from the Indian Ocean have left their moisture on the Abyssinian Plateau.

The absence of vapor contributes to extremes of temperature, and a day of intense heat in the desert may be followed by a night whose temperature is at the freezing-point. Hot, parching winds from the Sahara prevail, at times, in Egypt, Guinea, and Southern Europe.

10. **Productions and Animals.**—In the region of periodical rains Africa has a luxuriant vegetation.

The more noted trees are the baobab, the acacia, the date-palm, the sago-palm, the oil-palm, the mangrove, the tamarind, and a species of bread-fruit tree. Evergreen oaks, pines, myrtles, and laurels grow in the North. Ebony is an important product of Madagascar and the Portuguese Possessions. Coffee is a native of Abyssinia. The "travelers' tree," whose stalks yield water pure enough to drink, is peculiar to Madagascar. The papyrus and the lotus belong to the Nile.

The banana, the yam, and the manioc are among the valuable food-plants. Rice, wheat, maize, and barley grow abundantly in Egypt and other countries. Figs, oranges, grapes and wine; grain, dates, and almonds; coffee, sugar, and molasses; olives and olive-oil; spices, palm-oil, gums, wax, tobacco, indigo and other dyes; senna, myrrh, and aloes; wool, skins, leather, ivory, tortoise-shell, and ostrich-feathers; cotton, hemp, and flax; and gold-dust and diamonds are the chief exports. Copper, iron, lead, and salt are widely diffused. Coal is found in the extreme South.

Questions.—Name the largest lakes. What is said of Victoria Nyanza? Of Albert Nyanza? Of Lake Tchad? Into what large river does Lake Tanganyika flow? Which is the highest lake in Africa? The lowest? What is said of the climate? What parts of Africa are unhealthful? What is said of the rainfall? Name some of the noted trees. Some of the important food-plants. The minerals.

11. Among the animals peculiar to Africa are the African elephant, the hippopotamus, the African rhinoceros, the giraffe, the zebra, and the quagga; the mandrill, the gorilla, and the chimpanzee; and the gazelle, the gnu, and other antelopes.

Other native animals are the lion, the jackal, the hyena, the leopard, and the panther; the zebu, the camel, and the buffalo; the crocodile and the python; the ostrich, the secretary-bird, the ibis, and the guinea-fowl; monkeys and apes of great variety; and sheep and goats of peculiarly valuable kinds.

12. **Inhabitants.**—The population of Africa is about 168,500,000, less than one-half of the population of Europe. The people belong chiefly to two races—the Ethiopian and the Caucasian.

The negroes—who constitute four-fifths of the population—live in the central and the southern parts. The white race occupy Northern Africa, the Sahara, Abyssinia, and settlements on the coasts. The inhabitants of Madagascar are Malays.

Mohammedanism is the prevailing religion of the white people of the North. In Abyssinia and in the European colonies, Christianity is the prevailing religion. The negroes, in general, are pagans or fetich worshippers.

POLITICAL DIVISIONS.

13. For convenience of description, Africa may be divided into *Northern, Eastern, Southern, Western, and Central Africa.*

NORTHERN AFRICA.

14. **Northern Africa** comprises Morocco, Algeria, Tunis, and Tripoli; the Sahara; and the Nile Countries.

The most important food-plants in this region are millet and the date-palm tree. The southern part of Algeria is called *Beled el Jerid* ("Land of Dates"). Rice, wheat, tobacco, sugar, and cotton are raised in Egypt. Grain, olive-oil, dates, almonds, wax, and leather are the chief exports.

15. **Marocco** is an independent empire. **Algeria** and **Tunis** belong to France. **Tripoli** is nominally subject to Turkey. **Fezzan** is tributary to Tripoli.

The inhabitants carry on an extensive trade with the negro tribes, south of the Great Desert, and they export wool, goat-skins, leather, olive oil, and various fruits. Fez, Mequinez, Morocco, Algiers, and Tunis are the chief cities.

Questions.—Name some of the animals peculiar to Africa. Give the population. What is said of the people? Of their religion? How may Africa be divided? What does Northern Africa comprise? What are the principal productions? Which of the states bordering on the Mediterranean is independent? To what nation do Algeria and Tunis belong? Name the chief cities.

16. The Sahara consists largely of sandy and stony tracts, but contains many oases, or fertile spots. Although it can only be crossed by the aid of camels, an extensive caravan trade is carried on between the interior and the seaport towns.

The numerous inhabitants of the oases dwell in walled towns and cultivate extensive plantations. The people in the western portion of the desert are Moors, in the central portion Tuaricks, and in the eastern Tibboos. The Tuaricks frequently plunder the caravans. The Tibboos are not a nomadic race, but cultivate the soil and tend their flocks. Salt is found in the desert in large quantities.

17. The Nile Countries are Egypt, Nubia, Kordofan, Darfur, and Abyssinia.

18. Egypt, celebrated for its pyramids, and its ruins of ancient cities and temples, is the most important and interesting country in Africa. It is the oldest civilized nation known to history.

Though nominally subject to Turkey, Egypt is practically independent, having its own ruler (styled the Khedive), but paying tribute to the Turkish Government.

The Suez Canal, across the Isthmus from Port Said to Suez, is one of the greatest engineering works of modern times. It is about 100 miles long, 72 feet wide at the bottom, and 24 feet deep. Vessels by passing through this canal can make much shorter voyages between European ports and those of Southern Asia.

19. Nubia, Kordofan, and Darfur.—Nubia is nominally subject to Egypt. Kordofan and Darfur, formerly claimed by Egypt, are now part of the British Possessions in Africa.

Although it rarely or never rains in Middle or Lower Egypt, the land is watered by the annual overflow of the river Nile, making the country extremely fertile.

Alexandria is the chief sea-port of Egypt. Cairo, the capital, is the largest city in Africa. Khartoom is the only city of any considerable size in Nubia.

20. Abyssinia consisted until lately of three separate States. They are now united under the government of a Negus or emperor, and nominally under the protection of Italy.

Gondar is the capital of Abyssinia. Most of the people profess the Christian religion, but their faith is obscured by many barbarous and superstitious ceremonies.

EASTERN AFRICA.

21. Eastern Africa includes the countries upon the coast, from the Strait of Bab-el-Mandeb to the Tropic of Capricorn. The principal divisions are British East Africa, German East Africa, and the Portuguese Possessions. The country north of British East Africa is occupied by a people called the Somalies.

Zanzibar City is on the Island of Zanzibar.

SOUTHERN AFRICA.

22. Southern Africa comprises Cape Colony, Natal, Caffraria, Zululand, Basotuland, and Griqualand, which are British possessions; the South African Republic and Orange Free State, also Bechuana-land which is under the protection of Great Britain.

The South African Republic and Orange Free State are inhabited by negro tribes and Dutch boers, or farmers; the latter being the ruling class. The Western Coast, including Namaqua and Damara Land, belongs to Germany.

23. Cape Colony is the most important division of Southern Africa. About one-half of the inhabitants are Dutch and English.

Cape Town, the chief city, carries on an extensive trade with Great Britain and other foreign countries. Wool is the principal article of export.

Questions.—Describe the Sahara? Which are the Nile countries? For what is Egypt celebrated? Describe the Suez Canal? By whom is Nubia claimed? To whom does Kordofan and Darfur belong? What is said of Abyssinia? What are the principal divisions of Eastern Africa? Where is Zanzibar City? Mozambique? What does Southern Africa comprise? What divisions belong to the British? Describe Orange Free State. South African Republic. Cape Colony.

WESTERN AFRICA.

24. Western Africa includes the countries along the coast from the Great Desert to the Tropic of Capricorn. The principal divisions are the **British, French, German and Portuguese Possessions, Liberia and Sierra Leone.**

Liberia is a negro republic, with a government modelled after that of the United States. It was founded in 1821 by the American Colonization Society as a place of refuge for free blacks and liberated slaves. Monrovia, the capital and chief town, is a place of considerable trade, and contains many schools and churches.

Sierra Leone is a British Colony, and was founded in 1787 as a refuge for liberated slaves. Free Town is the chief town.

Guinea was the name formerly given to the coast region extending from Liberia to Cape Frio, now occupied by Great Britain, France, Germany and Portugal.

CENTRAL AFRICA.

25. Central Africa comprises Soudan, the Congo Free State, and the rest of the plateau as far as Southern Africa.

Soudan is a plain of great fertility, and embraces the basin of Lake Tchad and the greater part of that of the river Niger. It is well peopled by various tribes and nations, consisting principally of Moors, Berbers, and negroes. The people, as a whole, are superior to the inhabitants of the coast. Some of them work skilfully in gold, iron, and leather, and weave and dye substantial cotton fabrics.

South of Soudan the country was, until recently, but little known, and some of it is still unexplored. In 1876 and '77, Henry M. Stanley made a long and perilous journey across Africa, through almost impenetrable forests, exposed to continual attacks from hostile natives. After exploring Lake Tanganyika, he followed the course of the Lualaba River from Nyangwe to the Atlantic Ocean, finding it to be the main stream of the Congo. This important discovery, and the previous explorations south of Nyangwe, by Commander Cameron, prove that the source of the Congo is Lake Bangweolo, or Bemba.

Congo Free State.—These discoveries led Leopold II., King of Belgium, to organize the International Association of the Congo, and the services of Stanley were secured to execute the plans of the Association. His triumph over the dangers encountered, and the successful establishment of stations along the river, resulted in the formation of the Congo Free State, which has a civilized government and is pledged to free trade, freedom of religion, and the suppression of the slave trade.

In 1887, Stanley undertook another journey across the continent for the purpose of rescuing Emin Pasha, a noted explorer, who was supposed to be held a prisoner by the inhabitants of the Upper Nile region. Starting from the mouth of the Congo River with a numerous force, but little intelligence concerning him reached the civilized world until the latter part of 1889, when he appeared on the eastern coast, near Zanzibar, having accomplished the object of his journey and made many important geographical discoveries.

The productions of Eastern, Western, and Central Africa, are such as belong to the Torrid Zone. Palm oil, ivory, gold-dust, India-rubber, cotton, and the various nuts and fruits with which the country abounds are collected by the natives and exported from the towns along the coast.

Savage and powerful animals, such as the lion, elephant, rhinoceros, hippopotamus, and the gorilla, a gigantic species of ape, abound in this portion of Africa.

THE AFRICAN ISLANDS.

26. Madagascar, the largest island of Africa, is a mountainous but fertile kingdom. Antananarivo is the capital and largest city, and Tamatave is the most important seaport.

Réunion and Mauritius Islands are east of Madagascar. The former belongs to France, the latter, to England. The Amirante and Seychelle Islands are dependencies of Mauritius. Socotra belongs to England.

The Azores, Madeira, and Cape Verd Islands belong to Portugal; the Canaries, to Spain. Fruit, sugar, coffee, cochineal, and salt are the chief exports.

St. Helena and Ascension are British islands. The former is noted as having been the place of exile of the Emperor Napoleon, who died there in 1821.

Questions.—What are the principal divisions of Western Africa? What European governments have settlements upon the coast? What is said of Liberia? Describe Soudan. What is said of the inhabitants? What important discovery was made by Stanley in 1877? What is the Congo Free State? What is said of its government? Describe Stanley's later journey. Name some of the exports of Africa. The principal animals. Describe the largest African island.



Outline.

By what isthmus is Africa connected with Asia? What seas does that isthmus separate? Where does Africa approach nearest to Europe? What bodies of water wash the coast of Africa? Which is the most northern cape? The most eastern? Southern? Western?

Surface.

Name the most important mountain-systems. Which of these skirts the northern coast? Name the principal chains near the eastern coast. The south-eastern and southern. What chain north of the Gulf of Guinea? Where are the Cameroon Mountains? What is the general surface of the interior of Africa?

Is the surface of Senegambia high or low land? Where is the Desert of Igidi? El Djuf Desert? The Desert of Edeyen? The Libyan Desert? The Plateau of Darfur? Which of these are low land? What parts of Africa are below the sea level?

Rivers and Lakes.

Into what bodies of water do the most important rivers flow? Name the principal river flowing into the Mediterranean. What is the principal tributary of that river, below the union of the White and Blue Nile? Through what countries does the Nile flow, below that union?

What great river flows into the Gulf of Guinea? In what mountains does it rise, and through what countries does it flow? What large lakes in Central Africa? Which lakes are drained by the river Nile? What lake has recently been discovered to be the source of the Congo? What large lake has no known outlet?

Climate.

In what zone does the greater part of Africa lie? What, then, is the general character of the climate and productions? What portion of the peninsula is in the North Temperate Zone? In the South Temperate? Why is Africa the driest of the Grand Divisions? Which shore of the Mediterranean Sea is the warmer; the European or the African? Why?

Northern Africa.

Name the sections into which Africa is divided? What countries are included within Northern Africa? What is the southern boundary of those countries which are west of Egypt? Which one of these countries borders on the Atlantic Ocean? Name those which border on the Mediterranean? What cape on the northern coast of Tunis. Where is the city of Morocco? Fez? Algiers? Tunis? Tripoli? Where is the "Land of Dates"? How do the people of the countries along the Mediterranean carry on trade with the natives of Soudan? What desert must they cross? What articles do they export?

How is the Sahara bounded? What mineral is abundant there? Name the countries of the Nile. What sea is on the east? What is the general surface of Abyssinia? Is the heat likely to be as great as in Nubia? Why?

For what is Egypt celebrated? By what river is it watered? Where is Cairo? The chief commercial city? What town at the union of the White and Blue Nile? Name some of the productions of Egypt.

To what race do most of the inhabitants of Northern Africa belong? What religion do most of them profess? What people are Christians? Where are the Galla tribes?

Where do the inhabitants of the Sahara live? In what part are the Moors found? By whom are the caravans frequently plundered? What is the ruler of Egypt called? To what country are Nubia, Kordofan, and Darfur nominally subject? What is the political condition of Abyssinia?

Eastern Africa.

What is the extent of Eastern Africa? By what mountains is it bounded on the west? Name the two peaks east of Lake Victoria Nyanza. What capes on the coast? Locate them. What large river flows into Mozambique Channel from the plain in the interior?

To what country do Mozambique and Sofala belong? Where is Zanzibar Island? Where is the country of the Somalies? Where are the German and the British East African colonies?

Southern Africa.

What two capes at the south-western extremity of Southern Africa? What mountains along the coast? What part of this region is table-land? Name the principal river of South Africa. Into what does it flow? Name the divisions of which South Africa is composed. Which is the most important one? To what government does it belong? Where is the chief town? Name the exports.

Where is the colony of Natal? Where is the Orange Free State? The South African Republic? The country of the Zulus? The Bechnanas? The Namaquas? What can you say of each of the countries mentioned in this paragraph?

Western Africa.

State the extent of Western Africa from north to south. What ocean washes the coast? What countries bound it in the interior? Name the two principal divisions. Which of them is most extensive? What gulf on the coast of Guinea? What cape forms the most western land of Africa? Name the two capes on the coast of Liberia. (*See small map.*)

What river forms the northern boundary of Senegambia? What two great rivers flow from the interior through Guinea? Where are the native kingdoms of Ashantee and Dahomey? The Portuguese towns of St. Paul de Loanda and St. Felipe de Benguela? What European nations have possessions on the western coast of Africa? Which of these is most important? Where is Sierra

Leone? The Republic of Liberia? For what purpose were these settlements founded? What is the chief town of Liberia? Of Sierra Leone?

Central Africa.

What are the chief divisions of Central Africa? Which is the more northern? What is the northern boundary of Soudan? Describe the surface. Who constitute the inhabitants? How do they compare with the people of the coast?

What river flows through Soudan, describing nearly half a circle? Name its principal tributary. What lake in Soudan? Has it any outlet to the ocean? Where is Timbuctoo? Kouka? Sokoto?

What newly organized State south of Soudan? What persons took the most active part in establishing it? What lakes have been discovered recently in Central Africa? Where do their waters flow?

Name the chief productions of Eastern, Western, and Central Africa. What articles are obtained from the natives, and exported from the towns on the coast? Name the animals found in these three sections. Name the principal tributaries of the Congo River.

African Islands.

Name the largest of the African Islands. By what channel is Madagascar separated from the main-land? What can you say of that island? Where are Reunion and Mauritius Islands? To what countries do they belong? Where are the Azores? The Madeira and Cape Verde Islands? To what country do these three groups belong?

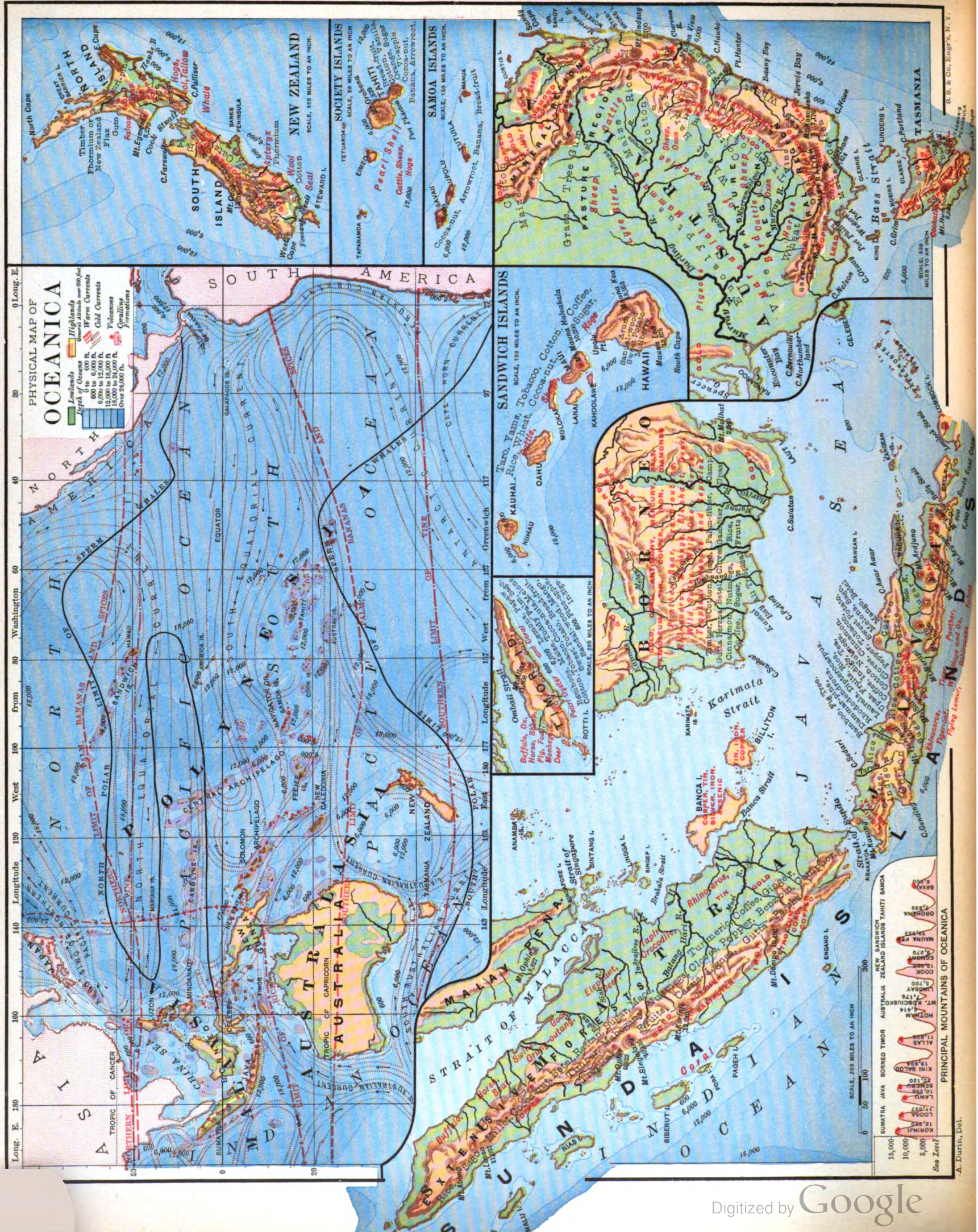
Where are the Canary Islands? To what country do they belong? What are the exports of these four groups? Where are St. Helena and Ascension Islands? What can you say of the first-named?

Miscellaneous.

Name the seas, straits, and oceans, on which you would sail, going from Lisbon to Zanzibar via Suez Canal. Via Cape of Good Hope. What is the difference in distance between the two routes, as near as you can measure by the scale of the map? What tribes inhabit the fertile portions of the desert of Sahara? What is their chief occupation?

In what part of Africa would you expect to hear many of the inhabitants speak the French language? The English? Why is the camel so useful an animal on the Great Desert? What savage animals would you be likely to encounter in the forests of Central Africa? In what country of Africa is the army partially composed of women?

Bound Africa. Sketch a map of Africa, and locate the principal mountain ranges and rivers. Spell Agulhas, Taccaze, Abyssinia, Tripoli, Beled-el-Jerid, Corrientes, Senegambia, Liberia, Verd, Madeira, Suez, Guardafui, Kilima-Njaro, Guinea, Morocco, Tchad, Fezzan, Delgado, Mozambique, Zanzibar, Senegal, Coanza, Ashantee.



PHYSICAL FEATURES.

OCEANICA lies in the Torrid and South Temperate Zones. It extends from 50° S. to 30° N. latitude, and from 100° W. to 90° E. longitude.

It is bounded on the south by the Indian Ocean, on the west by the China Sea, and embraces nearly the whole of the Pacific Ocean, both north and south of the Equator.

Size.—Of the 50,000,000 square miles included within these boundaries, the land area is only about 4,000,000.

3. Outline and Surface.—Oceanica consists entirely of islands, divided *physically* into three sections—the *Western*, the *Central*, and the *Eastern*.

4. The Western Section includes the greater part of the Sunda Islands (Sumatra, Java, etc.) and Borneo.

These islands probably once formed the southern part of the Asiatic Continent, and were detached from the mainland by some volcanic disturbance which occurred in prehistoric times. They are separated from the other parts of Oceanica by a great depth of water.

Borneo, in the northern part of this section, is traversed from north-east to south-west by the Seribu Mountains, a central chain rising from a table-land having an average elevation of 600 feet.

The Sunda Islands, forming the southern portion of this section, are only a partially-submerged mountain-chain, rising from 4000 to 12,000 feet above the sea-level.

5. The Central Section is the largest of the three, and comprises Australia, New Zealand, Papua, Celebes (and the Spice Islands), and the Philippines.

Questions.—In what zones does Oceanica lie? Define its limits. What ocean south? What sea west? What ocean east? What three physical divisions does Oceanica comprise? Name the principal islands in the Western Section. Describe the surface of Borneo.

Position.—In what direction is Oceanica from America? From Asia? Where does it approach nearest to Asia? What great island north of Java? What island east of Borneo? What islands lie north of Borneo? What great island east of Malaysia? Where is Australia situated? How far is it in a direct line from Borneo to South America? Name the most important groups of islands in Polynesia. Which islands of Oceanica are crossed by the Equator? Which islands lie north of the Equator? South of the Equator? Which islands are crossed by the Tropic of Capricorn? What group near the Tropic of Cancer? When it is noon at Greenwich, what time is it at Sydney (151° 25' E.)? At Honolulu (157° 55' W.)?

Size.—What is the area of Oceanica? What proportion of this area is land? What is the largest island in Australasia, excepting Australia? What island in Australasia is next in size to New Zealand? What island in Oceanica is next in size to Australia?

These islands consist in general of table-lands, having an average elevation of from 500 to 1000 feet, and crossed by or bordered by low mountain-ridges, except in Papua and New Zealand, where some high chains are found.

6. The Eastern Section includes several thousand small islands scattered throughout the Pacific Ocean. Some of these islands are mountainous and are of volcanic origin, but the greater part are *atolls*, or islands of coral-formation.

The most important groups are the Sandwich or Hawaiian Islands, Tahiti (Society Islands), the Samoan and the Feejee Islands.

7. Drainage.—Australia is the only island having a large river-basin. There are also some salt, marshy lake-basins in the interior of this island.

8. Climate.—The climate of Oceanica is variable, generally healthful, but very hot in the Western and Central Sections. The year is divided into two seasons—the wet and the dry.

Thunder-storms, waterspouts, and typhoons are of common occurrence. In the Eastern Section the peculiar distribution of small areas of land throughout the vast expanse of water affects the climate, which is comparatively moderate and salubrious.

9. Productions and Animals.—The rice region marks an important variation in the vegetable and animal life of Oceanica. (*See "Limit of Rice," on Map.*)

10. The islands of Malaysia, lying west of the line marking the limit of rice, and included within the territory bounded by it, have all the Asiatic plants and animals, together with some additional species.

Questions.—Describe the Central Section. Which are the principal islands? Of what does the Eastern Section consist? Name the principal groups. Where is the greatest river-basin of Oceanica? Where is the interior lake-basin? Describe the climate.

Outline and Surface.—Name the marine currents in Oceanica north of the Equator. South of the Equator. Which of them are warm currents? Which are the deepest regions of the Pacific Ocean? Of the Indian Ocean? In which ocean is the water deeper? What are the three physical divisions of Oceanica? Locate each. What is the general altitude of the table-lands in the islands of the Central Section? Of the table-land of Borneo? What island probably once formed a part of the continent of Asia?

Drainage.—What island has a great river-basin? Name the river draining this basin. Which are the principal rivers of Borneo? Of Sumatra? Of Java? Where is the basin situated which has no outlet?

Climate.—What is the character of the climate? Into how many seasons is the year divided? What is said of the storms? What effect has the ocean on the climate of the smaller islands?

Among the most important vegetable productions are rice—the principal food of the natives—coffee, sugar, cotton, raw silk, tobacco, the sago-palm, and all the spices and tropical fruits. The orang-outang, elephant, rhinoceros, hippopotamus, tiger, leopard, panther, buffalo, crocodile, numerous monkeys, and many species of insects, reptiles, and beautiful birds, are found here.

11. The great islands lying east and south of the preceding region are remarkable for forms of vegetable and animal life found only in this part of the world.

Wheat, maize, the vine, sugar, cotton, and fruits grow to perfection, but they are not natives of this region.

Australia has no large mammals, but produces some species of small size and a great variety of marsupials. The cattle, the sheep, and all the domestic animals were originally introduced by the white settlers.

12. The Polynesian Islands present a great variety of palm trees. The banana and bread-fruit trees are the most important.

Potatoes, maize, cotton, etc., are abundant. The cattle in these islands are of foreign origin, as in Australia.

13. Minerals.—This part of the world is one of the richest in minerals. Diamonds are found in Borneo, and gold is abundant in Australia and Malaysia.

The latter division is especially rich in tin, coal, iron, copper, quick-silver, etc., but the mines are not much worked.

14. Inhabitants.—The population of Oceanica is estimated at 40,000,000 to 45,000,000.

This population is composed of descendants of the European settlers (white), Malays (brown), and Australians or Papuans (black). The latter are among the lowest representatives of the human race.

Questions.—What line marks the most important divisions of animal and vegetable life? Name the principal vegetables of each division. The principal animals. The principal minerals. What is the population of Oceanica? Of what races does it consist?

QUESTIONS ON THE MAP AND TEXT.

Productions and Animals.—Where is the southern limit of bananas and spices? The limit of rice? What islands lie west of the latter line? Name the most important islands south-east of it. East of it. Describe the plant and animal life of Malaysia. Of Australia. Of Polynesia. Name the principal minerals of Oceanica, and the regions in which they are found. Where would you expect to find tobacco? Phormium? Wheat? Barley? Cloves? Cinnamon? Nutmegs? Rice? Camphor? Cotton? Coffee? Pepper? Sweet potatoes? Bread-fruit? The elephant? The rhinoceros? The lyre-bird? The apteryx?

Miscellaneous.—Name the physical regions of Oceanica. Describe the peculiar features of each. Name the principal divisions of Oceanica with reference to climate, vegetable, animal, and mineral productions. Compare and describe the difference in boundaries between the latter and the physical regions.



GENERAL DIVISIONS.

OCEANICA consists entirely of islands, which belong to the following divisions: *Malaysia*, *Australasia*, and *Polynesia*.

MALAYSIA.

16. Malaysia—sometimes called the Eastern or Malay Archipelago—is peopled chiefly by the Malay race. It is divided into four groups—the *Philippine Islands*; the *Borneo Group*; the *Celebes Group* (including the *Spice Islands*); and the *Sunda Islands*.

This Archipelago lies in the Torrid Zone, under or near the Equator, which passes through Sumatra, Borneo, Celebes, and Gilolo. The principal entrances to Malaysia from the south are by way of Sunda and Bally Straits, and through the Strait of Malacca (commonly called "The Straits") from the west.

17. Climate.—The climate, especially in the central groups, is very hot. These islands were formerly considered unhealthy, but, except in some small marshy districts, the climate is as salubrious as that of any tropical country, and at the altitude of 500 feet there exists a remarkably healthful region of perpetual spring.

18. Surface and Vegetable Productions.—No part of the world is richer in its vegetable productions than Malaysia, but these vary with each of the four groups above named.

19. The Sunda Islands are traversed throughout their entire length by a chain of high volcanic peaks covered with dense forests and remarkable for their frequent eruptions.

In 1883 more than 100,000 people perished in Java from an earthquake which resulted from the eruption of Krakatoa, a little volcanic island in the Strait of Sunda. Native traditions state that Sumatra, Java, and Bally once constituted a single island, which was torn asunder by earthquakes and volcanic disturbances.

The soil is very fertile. Rice is cultivated in most of the islands. Coffee, cotton, sugar, and indigo are exported in immense quantities. Cochineal, tobacco, and tea are raised with great success. All the tropical fruits grow here luxuriantly.

20. The Celebes Group.—The great island of Celebes, with Gilolo and the numerous other islands forming the group called the Spice Islands, lies almost directly under the Equator.

The climate is warmer and drier than that of the Sunda Islands. Rice is not so abundant as in the Sunda Islands, and sago supplies its place. The superior quality of spices which are especially characteristic of these islands gives them great importance.

21. The Borneo Group has the same productions as the Spice Islands in the south, but resembles the Celebes Group in the productions of the northern and eastern parts.

22. The Philippine Islands are mountainous and volcanic, and have a luxuriant vegetation combining the productions of Malaysia with some of the characteristic products of China.

Questions.—Into what groups is Malaysia divided? Which group is volcanic? What remarkable eruption occurred in 1885? Describe the climate. What is said of the vegetation? How does it vary in the different groups?

The soil is very fertile and the climate moist. Rice, sugar, cotton, silk, tobacco, coffee, hemp, some spices, and a great variety of fruits are the principal products.

23. Malaysia is remarkable for its dense forests, containing a great variety of palm trees (some species of which are the largest known), upas, teak (valuable for timber), bamboo, sandal-wood, ebony, etc.

It is also noted for the bread-fruit, orange, lemon, mangousteen, mango, banana, cocoanut, melon, etc. Sweet potatoes are also found here. Great quantities of timber, gutta-percha, and camphor are exported from Sumatra and Borneo.

24. Animals.—The orang-outang is found in Borneo. Some other species of large apes are found in Sumatra. The Asiatic elephant, the one-horned rhinoceros, and the tapir also live in this island.

The tiger, leopard, tiger-cat, hippopotamus, a great variety of small-sized monkeys, the wild boar, wild ox, buffalo, deer, babironsa, numerous insects, and enormous serpents are found in all the islands. The black panther lives in Java, and crocodiles are plenty in the rivers. Domestic animals, such as hogs, cattle, goats, and sheep, are abundant. The birds are remarkable for the beauty of their plumage.

25. Minerals.—The mineral resources of Malaysia are very great, but have not been fully developed.

Java furnishes only salt, naphtha, asphaltum, and lignite. Sumatra and Borneo are among the richest countries in the world in minerals. Tin, gold, copper, iron, petroleum, lignite, sulphur, and saltpeter are obtained from Sumatra. Banca and Billiton furnish great quantities of tin. Coal is found in Labuan Island. Gold, diamonds, coal, antimony, mercury, etc., exist in Borneo, but the mines are not worked. Good coal, gold, iron, and sulphur are exported from the Philippine Islands.

26. Inhabitants.—The ruling people of the Archipelago are the Malays. They are much engaged in agricultural pursuits. In the northern part of Borneo, the Sulu Islands, and the southern part of Mindanao many of them are pirates.

The population of Malaysia is about 38,000,000. In the interior of the larger islands are tribes of savages, some of whom, in Sumatra, are cannibals. There are also many Chinese and, in the commercial towns, a few Europeans.

The greater part of Malaysia is owned and controlled by the Dutch. Among their possessions are included two-thirds of Sumatra, the southern part of Borneo, Celebes, Gilolo, and the other Spice Islands, the southern part of Timor, Sumbawa, Lombok, Bally, Java, and Madura.

Java contains more than half the population of Oceanica, and in proportion to its area ranks second among the thickly-populated countries of the world, having 446 inhabitants to the square mile, while Belgium has 535 and the British Isles 312.

The Philippine and Sulu Islands belong to Spain. The Portuguese possess the northern part of Timor. Sarawak (Borneo) is controlled, and the island of Labuan is owned, by the English.

27. Towns.—Batavia, the capital of the Dutch possessions, Sourabaya, and Samarang, in Java, Benculen and Palembang, in Sumatra, Manilla, the capital of the Spanish possessions, are the most important towns and the chief commercial ports of Malaysia.

Questions.—What is said of the trees? Of the animals? Of the minerals? Who are the ruling people of Malaysia? What is the population? Which island is most densely populated? What European powers have possession in Malaysia?

AUSTRALASIA.

28. Australasia is the largest division of Oceanica. It comprises *Australia*, *Papua*, or *New Guinea*, *Tasmania*, *New Zealand*, *New Caledonia*, and many other islands of less importance.

The natives (except in New Zealand) belong to different varieties of the Papuan family, a negroid ("negro-like") race. Their color varies from chocolate to black. Many of the tribes are cannibals, and nearly all are savages.

29. AUSTRALIA is about as large as the United States without Alaska. It is the largest island in the world, and on that account is sometimes regarded as a continent.

30. Surface and Climate.—Near the coast almost the entire island seems to be guarded by mountain-ranges, but only along the south-eastern coast are there any high chains.

The Australian Alps and the Blue Mountains (2000 to 6000 feet) are the highest. The general altitude of the Australian table-land is from 500 to 600 feet. Most of the interior is a desert with some salt or marshy lakes, the most important of which are Lake Eyre, Lake Torrens, Lake Gairdner, and Lake Amadeus.

The Murray, the largest river, is about 1000 miles long. The plain drained by it and its tributary, the Darling, is generally hot and barren, rising gradually to the mountains on the coast; during the rainy season these rivers are flooded.

The northern half of the country is tropical. The southern part has a mild, sub-tropical temperature. Midsummer comes at Christmas.

31. The northern and eastern slopes are well watered, and the interior, near the mountains, is moist enough for grazing or tillage.

Upon the vast hot plains of the desert rain does not fall for many months; but when, at last, the heavy clouds succeed in passing the mountain-barriers, the rain falls in torrents, filling the dry beds of the rivers and flooding the thirsty plains.

32. Vegetable Productions.—Wheat, maize, and other grains, the vine, the mulberry, the olive, the orange, and the lemon, have been introduced by European settlers.

The natural vegetation is different from that of any other part of the world. The forests are usually light and open, for the leaves of the trees are narrow and upright; so that they do not shut out the sunlight. The gigantic eucalyptus, or gum tree, is a native of Australia. When it grows in wet lands, it absorbs a very great quantity of moisture, and thus prevents the exhalation of poisonous vapors. It sheds its bark instead of its leaves.

The grass is of superior quality, and sustains numerous flocks of sheep and immense herds of cattle in the western and south-eastern parts of the island.

33. Animals.—The native animals are very different from those of other countries. The domestic animals have all been brought into the country by the early settlers.

The kangaroo and many other animals of Australia carry their young in pouches. The platypus has the bill and the webbed feet of a duck, a body like that of an otter, and lays eggs. There are many singular and beautiful birds in this country.

34. Minerals.—Gold, silver, lead, copper, tin, iron, manganese, antimony, coal, and diamonds are found in abundance.

Gold, the most important of the mineral productions, was first discovered in 1851. Its product since that time has been greater than that of all the rest of the world except the gold districts of the United States.

35. Inhabitants.—The present inhabitants are chiefly Europeans and their descendants. The indolent natives are fast dying out.

36. Government.—Australia consists of several British colonies, which govern themselves and are independent of one another.

These colonies are New South Wales, Victoria, South Australia, West Australia, and Queensland. North Australia and Alexandra Land are thinly-settled districts.

Australia produces more wool than any other country, and the rich gold-fields of New South Wales and Victoria place these colonies among the most important divisions of Oceanica. The leading exports are wool and gold.

Questions.—To what race do the most of the natives of Australasia belong? What is the height of the Australian table-land? What is said of the climate? The productions? The forests? The animals? The minerals? Who are the present inhabitants? Name the colonies. To what power are they subject?

37. Towns.—Melbourne and Sydney are the principal commercial cities. Adelaide is the capital of South Australia. Brisbane is the most important city of Queensland, and Perth of West Australia.

38. TASMANIA is a mountainous island lying south-east of Australia, and separated from it by Bass Strait.

It has a mild climate, a fertile soil, and an abundance of timber. Gold, copper, iron, lead, coal, and tin are found here. Wool is the chief export.

39. NEW ZEALAND consists of two large and several small islands, which lie 1500 miles south-east of Australia.

These islands are elevated, and traversed from north to south by a chain of high volcanic mountains. The country is well wooded, and has a mild, rainy, and equable climate. The exports are gold, flax, wool, and gum.

The natives (called *Maoris*) are of the Malay stock, and are a well-formed, bold, and intelligent race. They were once ferocious cannibals, but by kind and just treatment they are becoming peaceable and friendly to the whites.

Tasmania and New Zealand belong to Great Britain.

40. NEW CALEDONIA is a mountainous island belonging to France. It is enclosed by coral reefs, is well wooded, and is rich in coal, copper, and tin.

41. PAPUA OR NEW GUINEA is the longest island in the world except Australia. It is nominally possessed by the Dutch, German, and English nations.

Little is known about this island. In the south-eastern peninsula is a chain of high mountains. The Fly River drains the southern part of the island. The interior is covered with dense tropical forests and inhabited by numerous tribes of savages.

Papua is remarkable for the great variety and beauty of its birds. The bird of paradise is found only in this island and in Australia.

The name *Melanesia*—meaning "Islands of the Blacks"—is applied to Papua and the islands east of the Coral Sea.

POLYNESIA.

42. The principal groups of Polynesia are the *Sandwich* (or Hawaiian), *Ladrone* (or Mariana), *Caroline*, *Society* (Tahiti), *Marquesas*, *Samoan*, and *Feejee Islands*.

43. Climate and Productions.—Nearly the whole of Polynesia is in the Torrid Zone, but, modified by the ocean-breezes, the climate is mild and delightful, though unhealthful for Europeans.

The *Sandwich Islands* are high and volcanic, and the most important group of Polynesia. *Hawaii*, the largest island, contains Mount Mauna Kea, the highest peak of Oceanica.

Oranges, pine-apples, plantains, and bananas, the yam, the bread-fruit, and the cocoa-nut, grow abundantly in the *volcanic islands*. Cotton and the sugar-cane are raised in some of the islands.

Most of the *coral islands* are *atolls*—that is, narrow strips of land rising but a few feet out of the water and enclosing a lagoon. They have a scanty vegetation, because, having no highlands to condense the rain-clouds, they are subject to droughts.

When first discovered, these islands contained no animal larger than a hog; but many of the domestic animals of Europe have been taken to Polynesia by white settlers. Birds and insects are numerous.

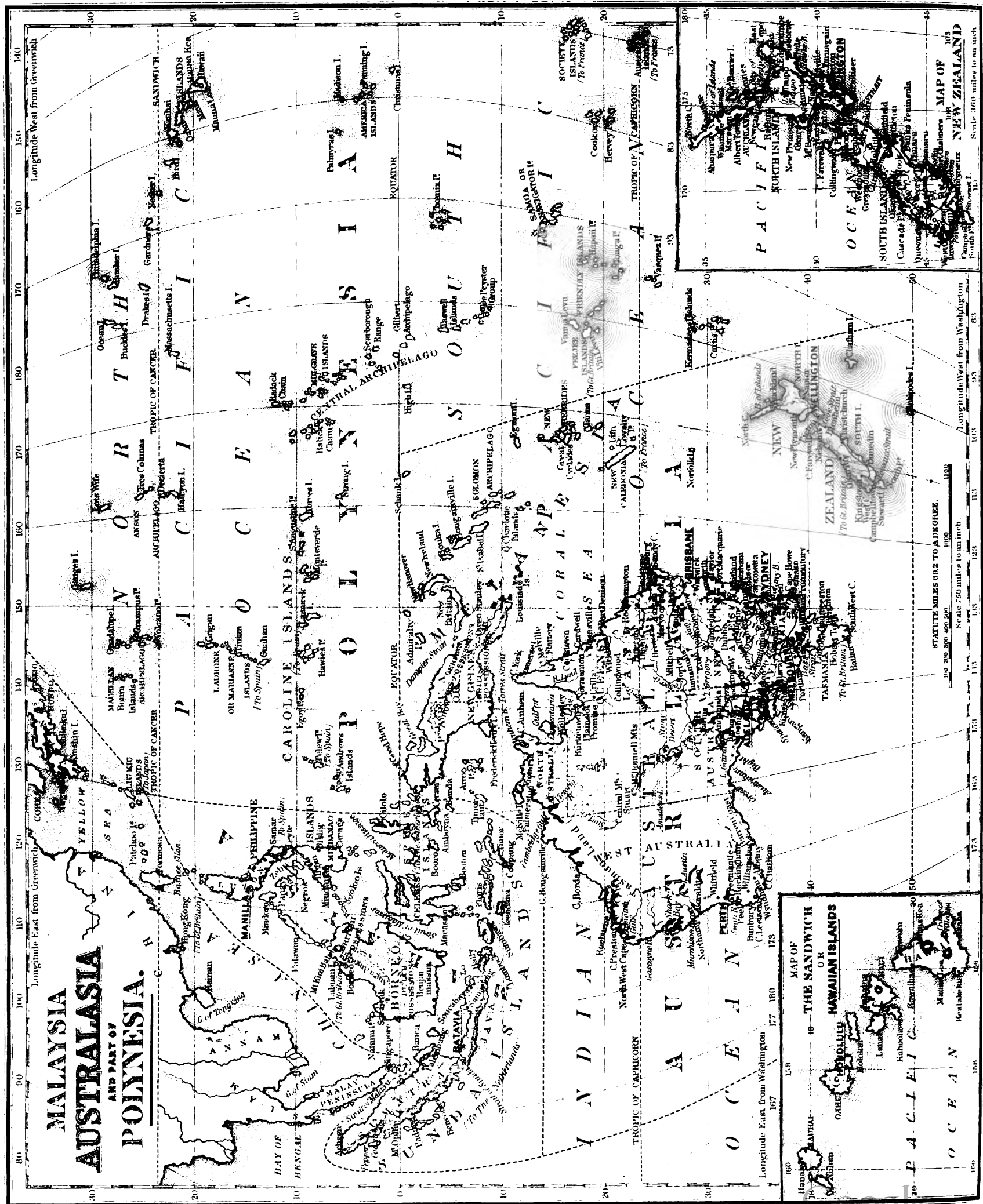
44. Inhabitants.—The Polynesians are akin to the Malays. They are a tall, finely-formed race. In the *Sandwich Islands* they have been converted to Christianity.

The native inhabitants of the islands of Oceanica, especially those of the Hawaiian Kingdom, are rapidly passing away before the white man, and, like the Indians of North America, will doubtless at no distant day become extinct.

45. Towns.—Honolulu, on Oahu, one of the *Sandwich Islands*, is the only important town in Polynesia.

The *Marquesas Group* and *Tahiti* are owned by the French. The *Ladrone* and the *Caroline Islands* belong to Spain, and the *Samoan Islands* are under the protection of the United States.

Questions.—Name the principal towns of Australia. What is said of Tasmania? Describe New Zealand. Its native inhabitants. What is said of New Caledonia? Of Papua? What are the principal groups of Polynesia? Describe the climate and productions. The inhabitants.



Statistical.

Name the three divisions of Oceanica. Which of them has the greatest extent of land? Which has the least? Of which division is the population greatest? The least? Name the largest island of Australasia. How does this island compare in size with the United States? With Europe? (*See pages 130-133.*)

Which is the largest island of Malaysia? Which of the United States are about the same size as Java?

Malaysia.

Name the principal islands of Malaysia. Near what continental division are they situated? What group extends farthest north? East? What island is farthest west? Which are the largest two of the Sunda Islands? Of the Philippine Islands? Of the Spice Islands?

What strait separates Sumatra from the Malay Peninsula? Java from Sumatra? Borneo from Celebes? What passage between the Spice and Philippine Islands? What sea between Borneo and the Philippine Islands, and Asia? What ocean washes the eastern shores of the Philippine Islands? The southern and south-western coasts of the Sunda Islands?

Are the islands of Malaysia generally mountainous, or level? Do they contain many volcanoes? Name some of the volcanoes in the Sunda Islands.

In what zone is Malaysia? What, then, is the climate? What changes of these islands are frequently very unhealthy? What changes would be observed in ascending from the low to the high lands?

What are some of the productions of Malaysia? Name some of the spices we obtain from there. What are some of the fruits of Malaysia?

Where is gutta-percha obtained? Can any scholar tell the use of gutta-percha? What minerals do we obtain from Java? From the Philippine Islands? What metals and other minerals are found in Borneo? What valuable mineral is exported from Banca?

Who are the ruling inhabitants of Malaysia? In what are they largely engaged? Who inhabit the interior of many of the islands? Where would you be likely to find some Europeans?

What Asiatic people are numerous in these islands?

On what island is Manila? To what country does it belong?

On what island is Batavia? To what country does it belong? On what island is Sarawak? Macassar? Palembang? Samarang? Benculen? Mindanao? Benjarmasin?

What European countries have possessions in Malaysia? What islands belong to the Dutch? The Spanish? The English? The Portuguese? Of which of these countries should you think the possessions most valuable?

Australasia.

Name the principal islands of this division. Which of them belong to Great Britain? Which one to France? In whose possession are the others? What does Melanesia comprise?

Australia.

Why is Australia often called a continent? What ocean bounds it upon the east? Upon the south and west? What sea on the north-east? What gulf indents its northern coast? Its southern coast? What sections of Australia are thinly settled?

What strait between Australia and Papua? Australia and Tasmania? Which is the most northern cape? What cape on the south-east? On the south-west? Where is North-west Cape?

Along what coast do the Australian Alps extend? What is the character of the surface of the central regions of the island? Name the largest river. Name two tributaries of the Murray.

In what zone is the northern part of Australia? What, then, is the climate of this section? In what zone is the southern part of Australia? What is the climate of this section? What can you say of the peculiarities of the rainfall?

In what hemisphere is Australia? When it is summer in Southern Europe, what is the season in Southern Australia? When it is winter in New York, what is the season at Sydney?

What are the most important productions? In what part of the island is the Gold Region? In what year was gold first discovered there?

Do most of the trees in the section of country in which you reside shed their leaves in winter? What difference, then, would you observe between them and the eucalyptus? What is the largest native animal in Australia? What other singular animal is found there?

Name the divisions of Australia. In what part is Queensland? New South Wales? Victoria? South Australia? West Australia? Which of these divisions are the most important? Why are they so? Name the principal cities. Of what division is Melbourne the capital? Where is it situated? On which coast of the island is Sydney? Of what division is Sydney the capital? Adelaide? Perth?

What large island north of Australia? What groups north-east? What island belonging to the French is east of Australia? What group north-east of New Caledonia? Where is Norfolk Island? What strait separates Papua from the islands on the north-east?

What island south of Victoria in Australia? What important group of islands south-east of Australia? Name the three most important islands of this group. Which is the most northern?

The most southern? Where are the Feejee Islands? Where is the Central Archipelago?

To what race do the native tribes of New Zealand belong? Of Australia, and most of the islands of Australasia? Who inhabit Tasmania? Of what race are the greater part of the inhabitants of Australia?

Polynesia.

In the midst of what ocean are the islands of Polynesia? Of what two kinds are they? Of what formation are the mountainous islands? The low islands? Which are the most important groups? Are they generally mountainous, or low? Which of them belong to Spain? Which to France?

Which is the largest of the Sandwich Islands? On which of them is the town of Honolulu? In what direction from Hawaii is Tahiti? To what power does Tahiti belong?

In what zone is most of Polynesia? What, then, is the climate? Is it at all modified by the influence of the ocean? Would ice be likely to form on any of the islands of Polynesia?

Name some of the fruits and vegetables of Polynesia. Are the Bonin Islands north or south of the Equator? The Caroline Islands? The Feejee Islands? The Society Islands? What can you say of the animals of Polynesia?

To what race do most of the natives of Polynesia belong? What can you say with reference to the labors of missionaries among them? Are the native inhabitants increasing or diminishing in number?

Miscellaneous.

Freight a vessel from Manila for the United States: what articles would you ship? On what water must it float to sail in a south-west direction? Through what straits to reach the Bay of Bengal? Between what peninsula and island? Through what strait would a vessel pass from the Indian Ocean with a cargo for Batavia?

With what would you freight a vessel at Melbourne for London? Through what strait and on what ocean would a vessel sail to go from Melbourne to Sydney? On what ocean and in what direction from Hobart Town to Auckland? From the Sandwich Islands to Canton?

From what island of Oceanica do we obtain gold? Diamonds? Tin? Wool? Sugar, hemp, and tobacco? Coffee? Pepper, cloves, and other spices? On what islands should we find the rhinoceros and tiger? The platypus? The orang-outang? The kangaroo? Where should we find the bread-fruit and the coconut tree?

Sketch a map of Australia, and locate the principal mountains, rivers, and towns. Spell Australia, Malaysia, Papua, Polynesia, Ladrone, Sumatra, Borneo, Philippine, Sumbawa, Sarawak, Melbourne, Adelaide, Hawaii, Honolulu, Feejee, Manila, Oahu, Sulu, Celebes, Kangaroo, Sydney, Papua, Tasmania, Malacca.

COMMERCE OF THE WORLD.

MOST of the commerce between distant nations is carried on by sailing vessels or by ocean steamers. Steamers can usually follow a direct course, but sailing vessels are often obliged to go many hundred miles out of their way in order to find favorable winds and currents.

Winds.—On the ocean the winds in the Torrid Zone blow steadily from the east all the year round. They are so useful to commerce that they are called Trade-Winds.

The trade-winds really extend beyond the Torrid Zone to about the thirtieth degree of latitude on each side

In the Indian Ocean, north of the Equator, the winds blow constantly from Africa to Asia between April and October, and from Asia to Africa between October and April. These winds are called Monsoons.

In the Temperate Zones the winds blow generally from the west—that is, during the greater part of the time they are from the west, north-west, or south-west.

Currents.—In many parts of the ocean the water moves constantly in one direction, flowing like a great river through the sea. These *ocean-rivers* are called Marine Currents. Their velocity varies from 20 to 120 miles a day.

It is important for the navigator to know where to find favorable winds and currents, and how to avoid those which will oppose his course.

Questions on the Map and Text.

How is commerce between distant nations generally carried on? Which class of vessels is the more dependent upon winds and currents? Which class, therefore, can make the shorter voyages? What sometimes prevents a sailing vessel from making a direct course?

Where is the region of the trade-winds? Why are they so called? In what direction do they blow? Are they *east* winds, or *west* winds? What are the monsoons? What is the general direction of the winds in the Temperate Zones? Which winds blow more steadily—those of the Temperate or those of the Torrid Zone?

What are marine currents like? What is their velocity? From what gulf does the Gulf Stream issue? What ocean does it cross? What current in the Pacific Ocean corresponds to it? How do these two currents affect the climate of the north-western shores of Europe and North America? Why should a sea-captain know the locality and the direction of winds and currents?

A Voyage from the Atlantic Ports of the United States to Europe.—In what zone? What winds generally blow? Can the ship-captain be *sure* of having westerly winds? What favorable current may be followed in this voyage? Which is usually the quicker passage—from New York to Liverpool, or from Liverpool to New York? Why?

From the Atlantic Ports of Europe and the United States to Asia and Australia.—Through what belt of winds must the ship first pass? What belt follows? What belt south of the trade-winds? Around what African cape will the vessel sail? Why does she not go around Cape Horn?

Across the Indian Ocean.—Suppose a vessel bound from Portland, Maine, to Calcutta, arrives in the Indian Ocean in December; will she find the monsoons favorable, or unfavorable? If she is to go from Calcutta to Cape Town, in what months will she make the quickest passage?



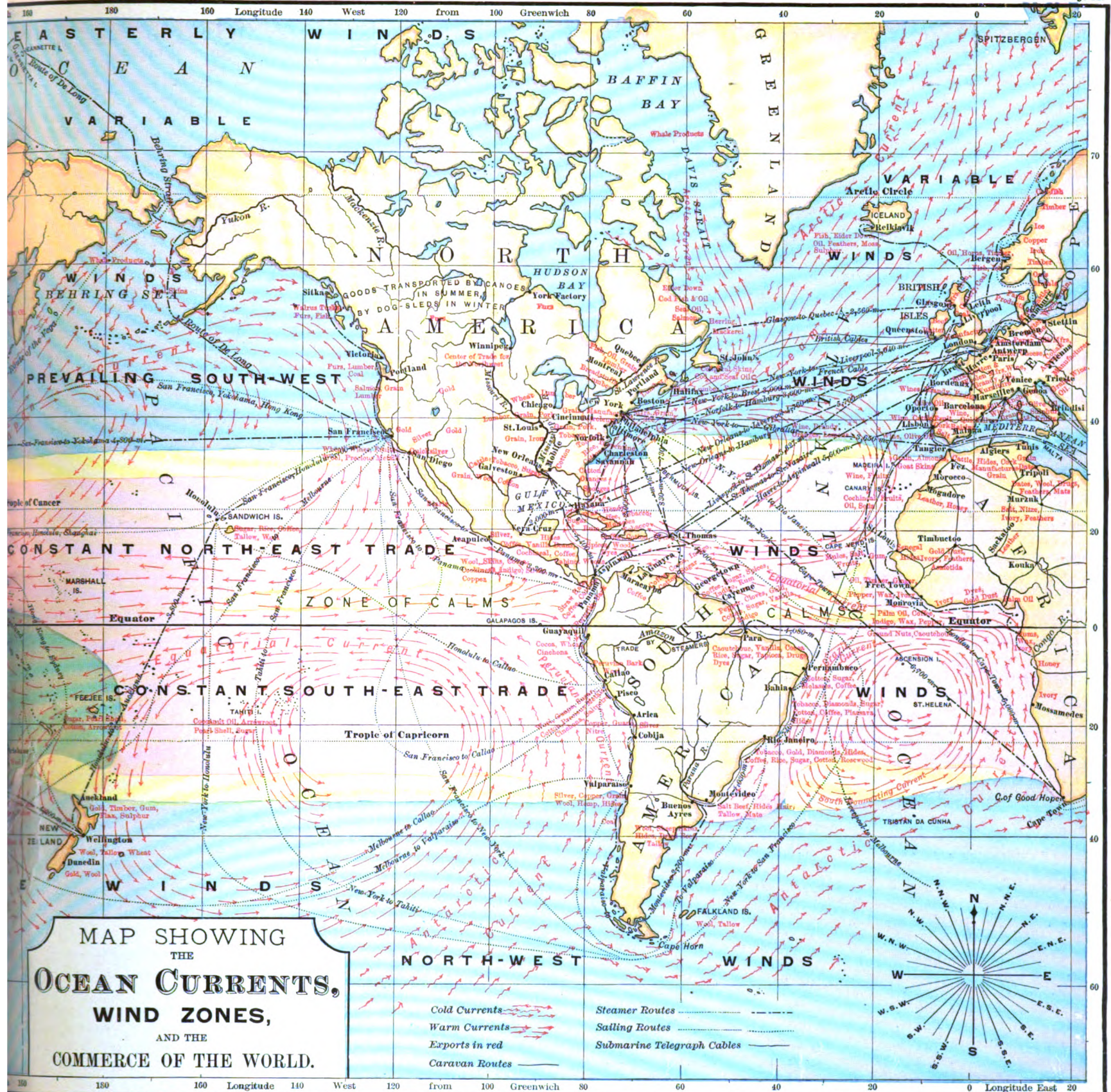
From the Atlantic Ports to San Francisco.—Through what waters and around what capes would a vessel sail in going from Philadelphia to San Francisco? What belts of winds would she cross? Through what strait could a steamer pass, instead of going around Cape Horn?

Send a cargo from Boston to San Francisco *via* the Isthmus of Panama; where would the Boston vessel transfer the cargo, and where would it be reshipped?

From England to India there are several routes. In going *via* the Cape of Good Hope, what winds are found? In making a voyage from London to Calcutta *via* the Suez Canal, what waters would you cross?

The *overland* or *mail* route to India is by way of France or Germany to the Mediterranean, and the by steamer; trace this passage from London to Bombay. From Hamburg to Calcutta.

A Voyage Around the World.—A San Francisco merchant crosses the United States by railroad New York; through what great cities may he pass? He brings with him some car-loads of California productions; name them. He sells them in New York and loads a ship for Havre; what is the cargo? If he can go to Marseilles *via* Paris? In Paris and Lyons he selects goods for Calcutta; what are they? To his route by steamer to Calcutta.



He sells his cargo in Calcutta, and sails to Canton, touching at Singapore; through what waters and islands does he pass? He loads his ship at Canton; with what goods? Arriving at San Francisco, he has completed the *Voyage Around the World*.

Trade of the Principal Cities.—What articles would be exported from St. Petersburg to New York? Why would not grain be among them? From what cities in our Southern States would New York import cotton? Why not from Calcutta and Alexandria (Egypt)?

Why does London import grain? From what port on the Black Sea? Which does Liverpool import chiefly—raw or manufactured cotton? Which does

she export? What great city in South America exports coffee? What town in the West Indies? In Java? In Arabia?

Is rice shipped from Calcutta to Canton? How are furs sent from Kiachta to Pekin? What is received in return? How is tea sent from Kiachta to St. Petersburg? What port in South America exports copper and wheat? Is any of this wheat sent to San Francisco? Does Rio Janeiro export, or import, hardware?

Leading Productions.—Let the scholars name some of the countries that produce each of the following articles:

Tea,	Cocoa,	Indigo,	Mahogany,
Figs,	Cotton,	Opium,	Petroleum,
Silk,	Spices,	Lemons,	Pine-apples,
Coal,	Silver,	Oranges,	Gum arabic,
Rice,	Coffee,	Cordage,	Fancy-goods,
Sago,	Linen,	Tapioca,	Naval stores,
Gold,	Sugar,	Tobacco,	Sarsaparilla,
Wool,	Ivory,	Salt fish,	India-rubber,
Furs,	Dates,	Bananas,	Attar of roses,
Flax,	Wheat,	Almonds,	Peruvian bark,
Wine,	Maize,	Cochineal,	Whale products,
Hemp,	Olives,	Chestnuts,	Beet-root sugar,
Hides,	Copper,	Cocoanuts,	Ostrich-feathers.

LEADING EXPORTS FROM THE PRINCIPAL COMMERCIAL CENTERS.

Aberdeen.—Malt and Spirituous Liquors, Oatmeal, Salmon, Stockings, Yarn.
Abomey.—Dyes, Gold, Ivory, Palm-oil.
Acapulco.—Cacao, Cattle-products, Cochineal, Copper, Drugs, Dyestuffs, Fruits, Grain, Indigo, Mahogany, Silver.
Alexandria.—Coffee, Cotton, Dates, Drugs, Grain, Rice, Sugar.
Algiers.—Cattle-products, Copper, Cork, Cotton, Dates, Grain, Indigo, Leather, Olive-oil, Sugar.
Amsterdam.—Dairy-products, Fish, Manufactures, Spirituous Liquors.
Archangel.—Cattle-products, Flax, Forest-products, Oats, Rye.
Astrakhan.—Fish, Furs, Leather, Oil.
Auckland.—Cattle-products, Coal, Flax, Gold, Lumber, Wheat.
Bahia.—Brazil-wood, Coffee, Cotton, Diamonds, Drugs, Rice, Rubies, Sapphires, Sugar, Tobacco.
Baltimore.—Canned Fruit, Coal, Flour, Grain, Oysters, Petroleum, Tobacco.
Bangkok.—Indigo, Opium, Rice, Spices, Sugar.
Barcelona.—Almonds, Cork, Fruits, Iron, Laces, Leather, Olive-oil, Quick-silver, Silk, Tobacco, Wine, Wool.
Batavia.—Cochineal, Coffee, Indigo, Rice, Spices, Sugar, Tin, Tobacco.
Belfast.—Dairy-products, Flax, Hemp, Linen, Malt and Spirituous Liquors.
Bergen.—Copper, Fish, Furs, Ice, Iron, Lumber, Tallow, Train-oil.
Bombay.—Coffee, Cotton, Cotton Manufactures, Indigo, Jute, Opium, Precious Stones, Rice, Silk, Silk Manufactures, Spices, Sugar.
Bordeaux.—Brandy, Cotton Goods, Fruits, Silks, Wine.
Boston.—Canned Provisions, Fish, Ice, New England Manufactures.
Bremen.—Flax, Glass, Grain, Hemp, Iron, Linen Goods, Malt and Spirituous Liquors, Woolen Goods, Yarn, Zinc.
Buenos Ayres.—Cattle-products, Wool.
Bushire.—Carpets, Cotton Goods, Drugs, Fruits, Perfumes, Shawls, Silks, Wool, Woolen Goods.
Cadiz.—Fruits, Olive-oil, Salt, Tobacco, Wines, Wool.
Calcutta.—Cotton, Cotton Goods, Indigo, Jute, Opium, Raw Silk, Rice, Shawls, Silks, Spices, Sugar, Tea.
Callao.—Cinchona Bark, Coca, Guano, Saltpetre, Wool.
Canary Islands.—Archil, Coffee, Fruits, Honey, Sugar, Wax, Wine.
Canton.—Fans, Matting, Porcelain, Silk, Silk Goods, Tea.
Cape Town.—Cattle-products, Coffee, Copper, Diamonds, Ivory, Ostrich-feathers, Wheat, Wine, Wool.
Cartagena.—Cinchona Bark, Coffee, Cotton, Tobacco.
Cayenne.—Cacao, Coffee, Cotton, Indigo, Spices, Sugar.
Charleston.—Cotton, Naval Stores, Rice.
Chicago.—Beef, Grain, Live-stock, Lumber, Pork.
Cincinnati.—Beef, Flax, Grain, Live-stock, Pork, Tobacco.
Constantinople.—Carpets, Cotton, Drugs, Fruits, Grain, Leather, Olive-oil, Perfumes, Silks, Tobacco, Wine, Wool.
Cork.—Laces, Linens, Liquors, Silk and Woolen Manufactures.
Dantzic.—Beer, Cotton Goods, Flax, Grain, Linen, Wine, Wool.
Galveston.—Cattle, Corn, Cotton, Fruits, Hides, Rice, Sugar, Tobacco, Wool.
Genea.—Brandy, Fruits, Marble, Olive-oil, Silks, Velvets, Wines.
Georgetown (Guiana).—Cacao, Coffee, Cotton, Indigo, Molasses, Rum, Spices, Sugar, Tobacco, Vanilla.
Glasgow.—Chemicals, Cotton, Iron, and Woolen Manufactures, Fish, Ships.
Gottenburg.—Copper, Grain, Gunpowder, Iron, Leather, Lumber, Naval Stores, Skins, Tallow.
Guayaquil.—Cacao, Cinchona Bark, Coffee, Cotton, Honey, Wax.
Halifax.—Coal, Fish, Grindstones, Gypsum, Lumber, Potatoes, Sheep.
Hamburg.—Cotton, Linen, and Woolen Manufactures, Glass, Grain, Malt Liquors, Ribbons, Velvets, Yarn.
Havana.—Cacao, Cocoa-nut, Coffee, Fruits, Mahogany, Molasses, Rum, Spices, Sugar, Tobacco, Wax.
Hayre.—Brandy, Chemicals, Clothing, Cork, Cotton, Linen, Silk, and Woolen Manufactures, Fruits, Glass, Gloves, Jewelry, Laces, Leather, Olive-oil, Perfumes, Porcelain, Toys, Various Objects of Art, Wines.
Honolulu.—Cocoa-nut Oil, Coffee, Cotton, Sugar, Tallow, Wool.
Irkutsk.—Cotton, Fruits, Porcelain, Rice, Silk, Sugar, Tea (received from China *via* Kjachta).
Jamaica.—Cacao, Cocoa-nut, Coffee, Drugs, Fruits, Molasses, Rum, Spices, Sugar.
La Guayra.—Cacao, Cattle-products, Coffee, Fruits, Indigo, Sugar, Tobacco.
Lisbon.—Cork, Fruits, Olive-oil, Salt, Silk, Wine, Wool.
Liverpool.—Carpets, Chemicals, Coal, Cotton Goods, Cutlery, Earthen-ware, Glass, Iron-ware, Linen, Liquors, Woolen Goods.

London.—Manufactures and Productions of the British Empire.
Lyons.—Corn, Gold and Silver Stuffs, Ribbons, Silks, Velvets, Wines.
Madeira Islands.—Coffee, Fruits, Nuts, Sugar, Wine.
Malaga.—Almonds, Grapes, Lemons, Oranges, Raisins, Wines.
Manilla.—Cigars, Coffee, Cordage, Hemp, Indigo, Rice, Spices, Straw Hat, Sugar, Tobacco.
Morocco.—Almonds, Hides, Leather, Olive-oil, Wheat, Wool.
Marseilles.—Anchovies, Brandy, Cork, Cotton Goods, Fruits, Olive-oil, Sardines, Silks, Wine.
Mauritius.—Indigo, Sugar, Vanilla.
Melbourne.—Copper, Cotton, Gold, Hides, Tallow, Wheat, Wool.
Mobile.—Cotton, Naval Stores.
Mocha.—Coffee, Dates, Gum Arabic, Myrrh, Pearls.
Monrovia.—Coffee, Gums, Palm-oil, Spices, Sugar, Wax.
Montevideo.—Beef, Hides, Horns, Tallow, Wool.
Montreal.—Dairy-products, Grain, Lumber.
New Orleans.—Breadstuffs, Cotton, Sugar, Tobacco.
New York.—Beef, Cotton, Grain, Iron and Iron Manufactures, Petroleum, Pork, Tobacco.
Odessa.—Chemicals, Flax, Hemp, Leather, Linen Manufactures, Salt, Tallow, Timber, Tobacco, Wheat.
Oporto.—Cork, Fruits, Olive-oil, Wine, Wool.
Panama.—Cinchona Bark, Coffee, Cotton, Hats, Tobacco.
Para.—Cacao, Coffee, Cotton, Diamonds, Drugs, Dyestuffs, Ebony, Hides, Horns, India-rubber, Mahogany, Nuts, Rice, Rosewood, Spices, Sugar, Tallow, Tapioca, Wax, Wool.
Paris.—French Manufactures and Productions, Objects of Art.
Pernambuco.—Coffee, Cotton, Dyestuffs, Sugar.
Philadelphia.—Coal, Iron, Machinery, Manufactures, Petroleum.
Portland (Me.).—Ice, Lumber.
Portland (Or.).—Fish, Flour, Lumber, Wheat.
Quebec.—Fish, Grain, Lumber.
Rangoon.—Bamboo, Cotton, Indigo, Opium, Rice, Sugar, Teak-wood.
Riga.—Chemicals, Flax, Grain, Hemp, Iron, Leather, Linen Manufactures, Malachite, Tallow, Timber.
Rio Janeiro.—Cacao, Cattle-products, Cotton, Coffee, Diamonds, Drugs, Dyestuffs, Gold, Pepper, Rice, Tobacco, Wheat.
Rome.—Objects of Art of great variety.
San Francisco.—Almonds, Fruits, Gold, Grain, Lumber, Olives, Platinum, Quicksilver, Silver, Wine, Wool.
Savannah.—Cotton, Naval Stores, Timber.
Shanghai.—Cotton, Porcelain, Silk, Tea.
Sierra Leone.—Coffee, Ivory, Palm-oil, Spices, Wax.
Singapore.—Cotton Goods, Indigo, Opium, Rattan, Spices, Sugar, Tin.
Smyrna.—Carpets, Chemicals, Drugs, Fruits, Perfumes, Silks, Sponges.
Spice Islands.—Dates, Opium, Sago, Spices.
St. Johns (N. F.).—Fish, Oil, Seal-skins.
St. Louis.—Breadstuffs, Cattle-products, Machinery, Manufactures.
St. Paul de Loanda.—Diamonds, Gold, Gums, Ivory, Ostrich-feathers, Palm-oil, Spices, Sugar, Wax.
St. Petersburg.—Chemicals, Drugs, Flax, Furs, Hemp, Leather, Linen Manufactures, Malachite, Tallow, Wool.
Sydney.—Cattle-products, Copper, Cotton, Gold, Tin, Wheat, Wool.
Syra.—Fruits, Honey, Olive-oil, Wax, Wine.
Tamatave.—Cattle, Coffee, Hides, India-rubber, Wax.
Tobolsk.—Copper, Fossil Ivory, Furs, Gold, Iron, Platinum.
Trieste.—Almonds, Breadstuffs, Cotton, Glass, Linen and Woolen Manufactures, Lumber, Oil, Salt, Wine, Wool.
Valparaiso.—Copper, Grain, Hides, Silver, Tin, Wool.
Vera Cruz.—Cattle-products, Cochineal, Cocoa, Coffee, Dye-woods, Fruits, Indigo, Tobacco, Vanilla.
Victoria (B. C.).—Coal, Fish, Furs, Gold, Timber.
Victoria (Hong Kong).—Cottons, Porcelain, Silks, Tea.
Vienna.—Cottons, Garnets, Glass, Leather Goods, Linen Goods, Musical Instruments, Opals, Salt, Wheat, Wine, Wool, Woolen Goods.
Yokohama.—Bronzes, Fans, Lacquer-ware, Matting, Paper Goods, Porcelain, Raw Silk, Rice, Silk Goods, Tea.

SUMMARY OR REVIEW OF PHYSICAL FEATURES, ETC.

NORTH AMERICA.

Position.—Western Hemisphere. North Frigid, North Temperate, and Torrid Zones.

Size.—Third among the Grand Divisions.

Outline.—Irregular; coast-line penetrated by large gulfs and bays.

Surface.—Lofty mountains and plateaus in the west from the Arctic Ocean to the Isthmus of Panama, high and largest plateau supporting high mountains (Rocky Mountains and Sierra Madre) in the west across the continent from the north to the south; lower mountains in the east; and great plain between the eastern and the western highlands.

Lakes and Rivers.—The lakes and the rivers are numerous and important, affording great facilities for agriculture, manufacturing, and commerce.

Climate.—Very cold in the north; less severe, but variable, in the central parts, except on Pacific slope, where it is mild and equable; and hot in the south.

Productions.—Barley, cacao, cocoa-nut, coffee, cotton, drugs, dyestuffs, fruits, hay, Indian corn, lumber, manufactures, oats, rice, sugar, tobacco, wheat; coal, copper, gold, iron, lead, nickel, petroleum, quicksilver, salt, silver, tin, zinc; furs, grazing-products.

Animals.—Alligator, beaver, bison (or buffalo), black bear, cougar, deer, duck, eagle, elk (or moose), fox, grizzly bear, monkey, musk-ox, polar bear, puma, prairie-dog, seal, tapir, turkey, walrus, whale, wild goose, wolf.

People.—American Indians; descendants of European settlers; European emigrants; freedmen and others of African descent; Eskimos (in the north); Chinese emigrants; and people of mixed races.

SOUTH AMERICA.

Position.—Western Hemisphere. Torrid and South Temperate Zones.

Size.—Fourth among the Grand Divisions.

Outline.—Very regular; coast-line comparatively unbroken.

Surface.—Very high mountains and plateau in the west along the coast; lower ranges and very low plateaus in Brazil and Guiana; and a vast interior plain or river-basin.

Lakes and Rivers.—There are few lakes of importance, but the rivers are large and numerous; the Amazon is the largest river in the world. The rivers of the Pacific slope are short mountain-torrents.

Climate.—Tropical in the greater part; mild on the lower plateaus and in the regions toward the south; very cold in the extreme south.

Productions.—Cacao, cocoa-nut, coffee, cotton, drugs, dyestuffs, ebony, fruits, grain, india-rubber, mahogany, rosewood, spices, sugar, tobacco; copper, diamonds, gold, iron, lead, platinum, quicksilver, rubies, sago, salt, silver; beef, hair, hides, horns, tallow, wool.

Animals.—Alligator, alpaca, armadillo, boa-constrictor, condor, cougar (or puma), humming-birds, jaguar, llama, many species of monkeys, nandu (American ostrich), parrots, sloth, tapir, vicuna.

People.—Descendants of Spanish and Portuguese settlers; Indians, negroes, and people of mixed races.

EUROPE.

Position.—Eastern Hemisphere. North Frigid and North Temperate Zones.

Size.—Fifth and smallest of the Grand Divisions.

Outline.—Irregular; coast-line broken by inland seas and numerous inlets of the ocean.

Surface.—Eastern Europe is a plain. Southern and Western Europe are, in general, mountainous (Alps, Central Plateau), with many valleys and plateaus, the mountain chains running easterly and westerly.

Lakes and Rivers.—Rivers not so long as those of America, but numerous, and important to various branches of industry. The lake-regions are among the Alps and around the Baltic Sea.

Climate.—In the western parts, mild and equable, tempered by warm winds and currents; in the north, very cold; around Mediterranean, warm. The Great Plain has extremes of temperature.

Productions.—Drugs, flax, fruits, grain, hemp; coal, copper, fish, gold, iron, lead, lumber, manganese, manufactures, opals, platinum, quicksilver, salt, silver, sulphur, tin, zinc; furs, grazing-products, silk, wine and other liquors, wool.

Animals.—Bear, chamois, deer, eagle, fox, reindeer, stag, wild boar, wolf.

People.—Majority of inhabitants are of Caucasian race; Finns, Lapps, Magyars (in Hungary), Tartars (in Russia), and Turks proper are of Mongolian descent.

ASIA.

Position.—Extreme north-east in Western Hemisphere, rest in Eastern. North Frigid, North Temperate, and Torrid Zones.

Size.—Largest of the Grand Divisions.

Outline.—Irregular, large seas and gulfs breaking the coast-line.

Surface.—Great plain in Asiatic Russia; lofty mountains and vast plateaus in central and south-western regions; highest plateau of the world in Thibet; lower mountains and plateaus in southern peninsulas; largest depression of the world (Aralo-Caspian Basin); mountain chains run easterly and westerly.

Lakes and Rivers.—The largest lakes are salt. There are many important rivers, watering the most fertile and most populous countries in the world.

Climate.—Southern Asia is very hot; Northern Asia, very cold; and Central Asia, temperate. The plateaus and interior plains have, in general, a dry climate, with extremes of heat and cold.

Productions.—Bamboo, cacao, coffee, cotton, drugs, ebony, flax, fruits, grain, gums, hemp, indigo, opium, rice, spices, sandal-wood, sugar, tea, teak; copper, iron, nickel, platinum, tin, precious metals and precious stones, salt, sulphur; furs, ivory, silk.

Animals.—Bear, buffalo, camel, cobra de capello, crocodile, elephant, ermine, fox, goat, sheep, horse, hyena, jackal, leopard, lion, ox, reindeer, rhinoceros, sable, tapir, tiger, wolf, yak.

People.—The people of India, Arabia, Asiatic Turkey, Trans-Caucasia, Persia, Afghanistan, and Beluchistan are of the Caucasian race; in Indo-China, Japan, Turkestan, and Chinese Empire, the people are of the Mongolian race; there are Malays in Malacca.

AFRICA.

Position.—Eastern Hemisphere. North Temperate, Torrid, and South Temperate Zones.

Size.—Second of the Grand Divisions.

Outline.—Regular; no seas, gulfs, or bays extend into the interior.

Surface.—Chiefly broad plateau bordered by mountain chains (very high in the east); vast deserts in the north, smaller desert tracts in the south. Little is known to us of the central regions.

Lakes and Rivers.—There are numerous fresh-water lakes, and some very large salt lakes. The rivers are chiefly south and east of the Great Desert. The overflow of the Nile makes Egypt fertile and habitable.

Climate.—Africa is the hottest and driest of the Grand Divisions. The extreme south has a temperate climate; the desert winds give the northern countries a sub-tropical temperature; and the central regions, so far as they are known, are hot and unhealthful.

Productions.—Cotton, coffee, dates, drugs, fruits, grain, gums, ivory, palm-products, spices, sugar; diamonds, gold; cattle-products, ostrich-feathers.

Animals.—Antelope, baboon, buffalo, camel, chimpanzee, crocodile, elephant, giraffe, gnu, gorilla, hippopotamus, hyena, ibis, jackal, lion, manatus, ostrich, python, rhinoceros, zebra.

People.—North of Soudan, people of Caucasian race; south of it, except in European colonies, negro tribes; in Soudan, negroes and mixed races.

OCEANICA.

Position.—Eastern Hemisphere. Torrid and South Temperate Zones.

Size.—Larger than Europe. Australia alone is nearly as large as U. S., excluding Alaska.

Outline.—Consists entirely of islands. Australia, the largest, has a regular outline; no seas, gulfs, or bays penetrate very far into the interior.

Surface.—The Malaysian Islands and Papua are very mountainous, but Australia is an immense barren plain rising gradually to the low coast mountain ranges.

Lakes and Rivers.—Short rivers in Malaysia. In Australia nearly all of the rivers disappear in dry season, and lakes (most of which are salt) become reedy marshes.

Climate.—Northern and western part, tropical; southern part, mild, but variable, with extremes of temperature and destructive floods and droughts.

Productions.—Cotton, coffee, fruits, grain, indigo, sugar; coal, copper, diamonds, gold, tin; hides, wool, raw silk.

Animals.—All animals of Asia in Malaysia; apteryx in New Zealand; emu, kangaroo, lyre-bird, platypus, wild dog, wombat, in Australia.

QUESTIONS FOR REVIEW.

1.

What seas, gulfs, and bays lie east and south of Asia? What are the principal exports of France? Of Russia? Which has the milder climate, Paris or Quebec? Why? Name four of the largest rivers of Europe, and describe the Danube. What does the Dominion of Canada comprise? Why are great cities usually situated upon rivers? Name the largest six cities in the United States. In Europe. Where are the principal coal, iron, and gold mines in Europe? How would you go by water from Philadelphia to Vienna? What is a desert? Name some of the most celebrated deserts. Trace two different routes used by travelers in going from England to India.

2.

Name the principal rivers that flow into the Pacific Ocean. Name in order the countries bordering on the Mediterranean Sea. Name the islands in the Indian Ocean. Where are the following lakes, and by what rivers are they drained? St. Clair; Onega; Chesuncook; Albert Nyanza; Itasca; Champlain. What does the British Empire comprise? What four large rivers rise in the Alps? Describe each of them. Mention some of the principal deltas on the globe. Define a Great Circle. Where is the Dead Sea? Where is the Peak of Teneriffe? For what are the following places noted? Lyons; Canton; Genoa; Malaga; Mobile; Jerusalem. Which of these are sea-ports?

3.

What is government? What meridian divides the hemispheres? Name the highest mountain on the globe; the largest fresh-water lake; the longest river. When does the rainy season occur in tropical countries north of the Equator? How does a lofty mountain in the Torrid Zone illustrate the differences of climate and vegetation? To what race do most of the inhabitants of Northern Africa belong? In what directions do the slopes in North America lie? In Asia? Which produce a more equable climate? Where is the principal petroleum region in the United States? In Europe?

4.

Why are large commercial cities generally found on the sea-coast? What is the Gulf Stream? Name the great powers of Europe. Name four branches of the Amazon River. Name six remarkable volcanoes, and locate them. What names are given to the various chains in the great mountain-system extending across the Eastern Hemisphere from Spain to the China Sea? What is the most important town in South Africa? When it is summer at Chicago, what is the season at Valparaiso? Where do the Mongolians chiefly live? What is a degree?

5.

What country produces the best tea? Where is Aleppo? Surat? Astrakhan? Ghent? Where are the Atlas Mountains? Where is Roumania? What are the two chief commercial towns of Australia? Name the rivers that drain Siberia. What is the capital of British India? In what countries does Mohammedanism prevail? What country is the most extensively engaged in manufacturing? How does a chart differ from a map? Describe the surface of the Sahara. In what direction do most peninsulas extend?

6.

What waters does the Isthmus of Suez separate? What lands does it connect? Where is the Yukon River? Name the Greater Antilles. Into what does the Euphrates flow? Mention two lakes in South America. Name the principal rivers flowing into the Black Sea. Into the Baltic Sea. Where are the Snow Mountains? Locate Singapore; Smyrna; Para; Leipsic; Madras; Odessa. Which is better watered—the interior of North America or of Africa? How does the climate of the two compare?

7.

Where is the island of Malta? To what government does it belong? What do you mean by the Ottoman Empire? From what islands are spices chiefly imported? In what portions of Europe is wheat abundantly produced? The olive and mulberry tree? Name all the principal rivers on the western coast of Europe, between the Strait of Gibraltar and the Strait of Dover. Between the Strait of Dover and Denmark. What strait connects the Red Sea with the Arabian Sea? What two straits connect the Indian Ocean with the China Sea?

8.

On what waters will a vessel sail in going from New York, round the Cape of Good Hope, to Bombay, thence to Canton, thence to San Francisco, and thence, by way of Cape Horn, to New York again? At what towns on the borders of the Chinese Empire and Siberia do the Russians and the Chinese carry on an extensive trade? What town in Russia is noted for its great fairs? Which zone contains the most highly civilized nations? What is the effect of the climate of the Torrid Zone on its inhabitants? What division of South America has no towns? How many empires are there on the Western Continent? Which is the oldest-settled town in New England? In the United States?

9.

The course of the Mississippi River is from north to south; the course of the Amazon is from west to east: which river, do you think, is the more favorable to trade and commerce? Why are there no large rivers on the western coast of South America? Which is the largest empire in the world? Which one has the largest number of subjects? On what does the length of a river depend? Its direction? Rapidity? Volume?

10.

Which of the United States is most extensively engaged in manufactures? Which in commerce? Between what degrees of latitude and longitude are the United States situated? Which State produces the most corn? (*For this and similar questions see "Statistical" pages at end of book.*) Which one has the greatest number of square miles? Which one has the largest population? Which State produces the most wheat? What State and what Territory are intersected by the 40th parallel? What lands and what waters on the map of the Western Hemisphere are intersected by the meridian of Boston? Name the principal mountain-ranges of North America, and the general direction of each. Give some of the proofs that the earth is round. Name the great circles of the earth. Where are the principal coal and iron mines in the United States?

11.

Name some of the principal exports of the United States. Some of the principal imports. What is the horizon? Name the circles which bound the zones. Can you go farther north than the North Pole? Why is the length of a degree of longitude on the 40th parallel less than the length of a degree on the equator? What is the width of the North Temperate Zone in degrees? In miles? On what circumstances does the climate of a place depend? What is one cause of the change of seasons? What proportion of the earth's surface is covered with water? Of how many States and Territories does the United States consist? What is the latitude of the North Pole? Of the Equator?

12.

Where is the Bay of Fundy, and for what is it remarkable? What is the right bank of a river? Of what States does the Mississippi River form the boundary? Has the north-west passage from the Atlantic to the Pacific Ocean ever been made? To what race do the Eskimos belong? How wide is Behring Strait? What were the area and population of the United States at the time of the Revolutionary War? What are they now? Why do rivers rise in mountains? What is an ocean-current?

13.

What islands in the Atlantic are in about the same latitude as Charleston? What is the largest grain-port in the world? What lake in Central America? What lake in California? Are despotic governments found among savage or among civilized people? How many seasons are there in California? Give the latitude and longitude of New Orleans. What is the largest city west of the Rocky Mountains? Name four rivers which flow into Hudson Bay. How many miles is it from the centre of the earth to the surface? Name three branches of the Missouri River.

14.

Into how many departments is Geography divided? Define each department. In what direction does the earth rotate on its axis? Which is longer, the polar or the equatorial diameter of the earth? How many miles longer? What point on the earth has neither latitude nor longitude? What is a plateau? A watershed or divide? What are the three departments of the government of the United States? Name the principal rivers of North America flowing into the Pacific Ocean. What are the most important occupations?

15.

In what direction is Quito, in South America, from Charleston, South Carolina? In what direction, then, is South America from North America? Name the principal commercial cities in the United States. What is the difference between domestic commerce and foreign commerce? Into what physical sections is North America divided? Which is farther west, Havana or Buffalo? Where do the largest rivers of North America have their source? Of South America? Of Europe? Of Africa? Of Asia?

16.

Where are the settlements in Greenland? Where are the Wind River Mountains? What celebrated pass near these mountains? What active volcano near the South Pole? What is an active volcano? What group of islands connect the continent of America with Asia? What is the largest city on the Western Continent? What is a first meridian? Are mines usually found in fertile plains or in mountainous, rugged places? What conditions affect the distribution of plants? Of animals? Which continent has the most useful system of rivers?

17.

What is the distance in a straight line from Lake of the Woods to Galveston? From Cape Mendocino to the mouth of the Hudson River? What climate is the most favorable for agriculture? What peninsulas on the east coast of North America? On the west coast? Tell where you find the following mountain-peaks: Mitchell's Peak; Mount Baker; Mount San Bernardino; Mount Whitney. What parts of the earth move at the rate of a thousand miles an hour? What motion is uniform in all parts? Name the rivers flowing into Hudson Bay on the east.

18.

What bodies of land are found near the South Pole? In what direction does the great mountain-system of the Western Continent extend? In what direction does that of the Eastern Continent extend? What town at the head of Winnebago Lake? At the head of Lake Superior? What are Geysers? Where are the Tortugas Islands? Where is Gettysburg? Chattanooga? Fortress Monroe? Harper's Ferry? Vicksburg? Fort Sumter? What is the chief staple of the States bordering on the Gulf of Mexico? What strait separates Florida from the West Indies? How wide is the Equator?

A SYSTEM OF MAP-DRAWING.

BY E. A. AND A. C. APGAR.

This system of Map-Drawing is substantially the same as that originally prepared by the authors and published in 1865. Such improvements have been introduced, however, as the practical workings of the system have shown to be important.

SUGGESTIONS TO TEACHERS.

THE study of geography consists largely in a study of the form and locality of the features of the earth's surface. Maps give a much better idea of the form and locality of geographical features than can be obtained from descriptions only; hence, maps should be among the principal objects of study in geography.

The pupil commits his lesson in text to memory, and for a recitation, he repeats it to the teacher as given by the author. In studying maps the same rule should be observed; that is, the maps should be committed to memory, and for a recitation they should be reproduced as given in the book.

That form is easiest remembered which the hand is taught to trace. The exercise of the mind, needed to teach the hand to trace a form, impresses that form upon the mind. As the study of maps is a study of form, the manner of studying them should be by map-drawing.

In learning to draw maps, the pupil needs some rule or guide to assist him in drawing them correctly, and also to enable him to judge of their accuracy when drawn. This assistance is best afforded by the use of geometrical figures or diagrams. The diagram used in each case, in order to answer the purpose intended, should be so constructed as to coincide as nearly as possible in its outline with the boundaries of the map to be drawn. By the relative lengths of the lines of which it is composed, it should express the general laws of form of the map it is intended to accompany, and, by its angles and division marks, the position of prominent features should be determined. However complex and irregular the map may be, the diagram should be so simple that it can be readily constructed and easily remembered by the pupils.

In the construction of the diagrams used for drawing the Continents, the first line in each case serves as a measure for determining the lengths of the other lines. For the States *no additional diagram is used*, because the bounding lines are generally straight, and they themselves when taken together form a geometrical figure. In drawing the States, therefore, it is only necessary to select one of the straight lines forming the boundary for a measuring unit. The line selected should be a convenient measure or multiple of the other lines.

In conducting exercises in map-drawing, the class should be practiced,—*first* in drawing upon the blackboard, under the immediate direction of the teacher; *second*, in drawing upon slates, their work to be submitted to the teacher; and *third*, in executing maps upon paper, to be presented for the criticism of both the teacher and the class.

Either the teacher or one of the more skillful pupils should execute a well-finished and accurate map upon the blackboard. From this drawing—which is much to be preferred to any printed outline map—the class may recite their lesson, and upon it each of the new features, as they are learned from day to day, may be represented.

It is well to accompany every lesson in map-drawing

with more or less practice in rapid sketching. In order to excite emulation for quick work, the lesson may be drawn on the board, and the exercise timed by the teacher. Pupils, by practice, will soon be able to draw a diagram in half a minute, a State in from half a minute to two minutes, and a Continent in from three to five minutes. Concert recitation should frequently accompany rapid sketching.

An exercise called *talking and chalking* will be found both interesting and valuable. The pupil, while he is drawing a map, briefly and in a lively manner, describes the features as he represents them; his verbal explanations all the while keeping pace with his illustrations made with the chalk.

All directions and exercises in map-drawing should be such as to prepare the pupil to draw rapidly, accurately, and *without the copy*.

After the pupils have learned to draw a map with sufficient accuracy, and are able to describe satisfactorily the features it contains, they may, with the use of colors and India ink, be taught to draw and embellish one for preservation. *Not much time, however, should be spent in producing highly ornamented maps.* A slate-pencil and slate, lead-pencil and paper, white crayon and blackboard, are all the materials usually needed in map-drawing exercises. Rapid work and much of it should be the motto.

Special attention should be directed to the method employed for representing the population of cities and the heights of elevations. The symbols used will greatly assist the memory in retaining these facts. Special lessons may be given to teach their meaning. Their use should be required in all map-drawing exercises.

In drawing a Continent, the pupils should be taught,—*first*, to construct the diagram accurately; *second*, to draw the coast line, and to describe all the features formed by it, such as peninsulas, capes, bays, gulfs, &c.; and *third*, to draw and describe the internal features, such as mountains, lakes, rivers and cities. It is all important that the pupils should be able to draw the outline of a Continent readily and accurately, before they attempt to represent the internal features; for upon an imperfect drawing of the outline, the details must necessarily be imperfect.

In describing the features of a map, observe the following order and directions:—

- Diagram.**—Explain in full the manner of its construction.
- Points of Coincidence.**—Name in order the angles and division marks upon the diagram, and the features upon the map, the location of which they determine.
- Peninsulas.**—State from what portion of the Continent they project, and by what waters they are embraced.
- Capes.**—State from what portion of the Continent they project, and into what waters.
- Bays.**—Give their location, and the names of the bodies of water to which they are tributary.
- Islands.**—State where situated, and name the waters by which they are surrounded.
- Mountains.**—Give their height, the general direction in which they extend, and the part of the Continent where they are located.
- Lakes.**—State where located, and name the river which forms the outlet.
- Rivers.**—State where they rise, in what direction they flow, and into what waters.
- Political Divisions.**—Bound the country, and name, bound, and give the capital of each of the divisions.
- Cities.**—Give location and population.

EXPLANATION OF THE SIGNS USED TO REPRESENT THE POPULATION OF THE CITIES AND TOWNS.

FIRST CLASS.

In the First Class only one Sign is used viz. a round dot.
● represents under 10,000 Inhabitants.

SECOND CLASS.

Each Line of the Second Class represents a population of 10,000.

○ 10,000
⊕ 20,000
⊕ 30,000
⊕ 40,000
⊕ 50,000
⊕ 60,000
⊕ 70,000
⊕ 80,000
⊕ 90,000

THIRD CLASS.

The markings of the Third Class have a Dot in the centre. Each Line upon this Dot represents 100,000 population.

⊙ 100,000
⊙ 200,000
⊙ 300,000
⊙ 400,000
⊙ 500,000
⊙ 600,000
⊙ 700,000
⊙ 800,000
⊙ 900,000

FOURTH CLASS.




The markings of the Fourth Class have a Dot and Circle (●) in the centre. Each Line upon this Dot and Circle represents 1,000,000 inhabitants.

⊙ 1,000,000
⊙ 2,000,000
⊙ 3,000,000
⊙ 4,000,000

EXPLANATION OF THE SIGNS USED TO REPRESENT THE ELEVATION OF THE MOUNTAINS.

RANGES.

Hill and Mountain Ranges, Like the Cities, are divided into Four classes. The First is represented by a series of Parallel Curves; the Second by a series of Interlocking Curves; the Third by a Waved Line; and the Fourth by a Zigzag Line; as follows:

-))))))))) First Class or Hills,—Under 2000 ft. high.
-  Second Class,—Between 2000 & 8000 ft. high, or Between 1/4 and 1 1/4 miles high.
-  Third Class,—Between 8000 & 16,000 ft. high, or Between 1 1/4 and 3 miles high.
-  Fourth Class,—Over 16,000 feet high, or over 3 miles high.

PEAKS.

For Peaks under one mile high each Curve upon the right represents One-Fourth of a mile Elevation; for those one mile high or more, each Line upon the right represents One Mile in Elevation and the Dash underneath One Half a Mile.

○ 1/4 of a mile high.	△ 3 1/2 miles high.
⌒ 1/2 " "	△ 3 " "
⌒ 3/4 " "	△ 3 1/2 " "
⌒ 1 " "	△ 4 " "
△ 1 1/4 miles high.	△ 4 1/2 " "
△ 2 " "	△ 5 " "

System Patented October 16th., 1864.

DIRECTIONS FOR DRAWING NORTH AMERICA.

Diagram.—1. Draw a quadrant, and divide it into four equal parts, as represented in the figure. Through the first division at *r*, and the right angle, draw the first line of the diagram the length desired for the map.

2. From the centre of this line, draw the line *CD* at right angles with it, and one-half its length. Connect *A* *D* and *B* *D*.

3. Extend the line *CD* toward *E*, making the whole length *DE*, equal to *AD* or *BD*, and draw the lines *AE* and *BE*.

4. Divide the line *AE* into four equal parts, and from the upper division-point at *G*, draw the line *GH* at right angles to *AE*, and equal to *EC* in length. Connect *A* and *H*.

5. Divide the line *EB* into two equal parts, and from its centre, and at right angles with it, draw the line *I* *J* one-half the length of *EC*, and connect *E* and *J*, and *J* and *B*.

6. Divide the lines *CD* and *CE* each into two equal parts, and the lines *AD* and *BD* each into six equal parts.

7. Sub-divide the lower division of the line *DB* into three equal parts, and from the division-point at *L* draw *LM*, and from *M* draw *MN*, and from *N* draw *NO*,—making the length of each line equal to two thirds of the distance from *B* to *K*, or equal to the distance from *L* to *K*.

It will be observed that if the diagram is correctly drawn, the lines *DA*, *DE* and *DB* are equal in length, and the line *AE* is vertical.

Position.—North America is situated North of the Equator, and is joined to South America by the Isthmus of Panama.

Extent.—The length of the Continent, extending from Point Barrow, on the North, to the Port of Guatemala on the South, is 4,800 miles.

General Form.—The general form of North America is triangular. It is wide toward the North, and narrow toward the South. The Arctic and Atlantic coast-lines are nearly straight in their general direction, while the Pacific coast-line is curved.

Points of Coincidence.—The position of Point Barrow is determined by the northern angle of the diagram; Cape Charles by the eastern angle; Port of Guatemala by the southern angle; Bay of San Francisco by the western angle; and the western extremity of Alaska Peninsula by the north-western angle.

*** Drawing the Map.**—*Arctic Coast.*—Commence at Point Barrow. Make the mouth of the Mackenzie River opposite the first division; Victoria Land on the second; the mouth of Hudson Bay between the third and fourth, and Ungava Bay and Cape Chidley near the fifth division. The southern extremity of Hudson Bay touches the line *CD* near its centre.

Atlantic Coast.—Make the Pena. of Nova Scotia opposite the first division; Cape Cod north of the second, and Cape Fear at the third. The western shore of Florida crosses at the fourth division; the mouth of the Gulf of Mexico is between the fourth and fifth, and Yucatan Pena. extends as far north as the fifth. The shore of the Gulf of Mexico crosses the line *CE* near its centre, and touches the line *EB*. The shore of Central America, and the Isthmus of Panama follows closely the zigzag line from *K* to *O*.

Pacific Coast.—California Peninsula extends nearly as far south as the angle at *J*, and the eastern shore of the Gulf of California crosses the line *I* *J* near its centre.

Note.—It will be observed that the Lake of the Woods is on the line *CD*, midway between its centre and *c*; also, that Lake Erie is midway between the centres of the lines *GD* and *BD*.

* In these directions for drawing, some features are referred to which are not found upon the accompanying maps. In such cases it is expected that the pupil will refer to the other maps in the book.

DIRECTIONS FOR DRAWING SOUTH AMERICA.

Diagram.—1. Draw the vertical line *AB* the length desired for the map, and divide it into four equal parts. From the upper division-point, draw a horizontal line to the right, one-half the length of the first line, and divide it into three equal parts. Extend this horizontal line one-third of its length to the left.

2. Draw straight lines from *C* to *F*, from *F* to *A*, from *A* to *E*, and from *E* to *B*, and divide the lines *FA*, *AE*, and *EB*, each into three equal parts.

General Form.—South America in its general form is wedge-shaped—being wide toward the north and narrow toward the south. Its coast-line is simple, and deviates but little from the lines of the diagram. The length of the Continent from north to south is 4,500 miles.

Points of Coincidence.—The position of the Peninsula of Paragana is determined by the northern angle of the figure; Cape St. Roque by the eastern angle; Cape Pillar by the southern, and Cape Parina by the western. Opposite the second division-point, on the line *FA*, is the Isthmus of Panama; and opposite the second, on the line *AE*, is the mouth of the Amazon. Opposite the first division on the line *EB* is Cape Frio, and opposite the second is the mouth of the Rio de la Plata.

DIRECTIONS FOR DRAWING AFRICA.

Diagram.—1. By means of a quadrant divided into six equal parts, as represented in the figure, draw the first line of the diagram the length desired for the map.

2. Divide this line into two equal parts at *C*, and the upper half in four equal parts.

3. With the points *A* and *B* as centres, and with a radius equal to three-fourths of the first line, draw two arcs to intersect *D*, and draw the lines *AD* and *BD*. In the same manner with the points *A* and *C* as centres, and with a radius equal to three-fourths of the line *AC*, determine the point *E*, and draw *AE* and *CE*.

4. Divide the line *AD* into two equal parts, and draw the perpendicular *FE* equal to one-eighth of the first line. Divide the part *FD* into two equal parts, and draw the lines *AE* and *EG*. Trisect each of the lines *AE*, *DE*, *BC* and *CE*.

General Form.—Africa resembles both North America and South America in its general form, being wide at the north and narrow toward the south. Its coast is very regular, like that of South America. Its length, from Cape Spartel to Cape Agulhas, is 5,000 miles. Like South America, it is situated on both sides of the Equator.

Points of Coincidence.—The position of Cape Spartel is determined by the northern angle of the diagram; the Isthmus of Suez by the north-eastern angle; Cape Guardafui by the eastern angle; Cape Agulhas by the southern, and Cape Roxo by the western.

Outline.—Commence at Cape Spartel, and draw the northern and eastern coasts; then, from the same point, draw the western coast. The coast from Cape Spartel to Cape Bon is without the line of the diagram; then it crosses the line, and forms the Gulf of Sidra, opposite the second division-point. The western shore of the Red Sea follows the line *EG*, and makes an inward curve between *G* and *B*. The eastern shore first makes a small outward curve; touches the line at the first division-point, and then makes a much larger bend without the line, touching again at Cape Agulhas. From this point it deviates but little from the diagram till it reaches Cape Lopez. Between this point and the first division on the line *CE*, there is a large inward bend forming the Gulf of Guinea. It then bends without the line till we reach Cape Roxo. From Cape Roxo to Cape Spartel the coast is wholly without the line.

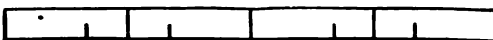


Fig. 1.

Figure 1 represents a convenient Ruler for pupils to use in drawing maps upon the blackboard. It is twenty inches long, and divided into halves, thirds, fourths and sixths. A similar one, six inches long, may be used for drawing on slate or paper.

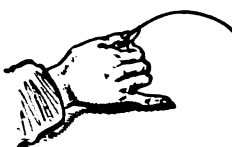


Fig. 2.

Figure 2 represents an easy method for drawing a quadrant.



Fig. 3.

Figure 3 represents an easy method for trisecting a line.

Note.—In the construction of diagrams, and in the division of lines, the pupils should at first be allowed to use a ruler, such as the one represented in figure 1. After some practice, however, the ruler should be dispensed with, and the figures should be drawn by hand, guided only by the eye.

In drawing a quadrant, a piece of crayon held between the thumb and first finger may be made to describe the arc around the end of the fourth finger, as represented in figure 2. A vertical and a horizontal line drawn from the centre to the arc will complete the quadrant. Instead of the hand, a short string with a piece of crayon tied to the end of it may be used; or, each pupil may be furnished with a quarter of a circle, cut out of a piece of writing paper, having the divisions of quarters and sixths marked upon it.

In dividing a line into three equal parts, use the finger of one hand and a crayon in the other, and place them so that the three parts appear equal, as represented in figure 3.

In dividing a line into four or six parts, first bisect it, and then bisect or trisect each half.

It will be observed that the different lines of the diagrams are drawn in the order they are lettered, and that the divisions are made in the order they are numbered.

In drawing upon paper or slate, the diagram should be in very light lines. For blackboard work, the figure should be drawn with a slate-pencil.

MODEL LESSON IN MAP-DRAWING.

In Map-drawing Exercises, the pupils may either be required to describe their work in full, without the assistance of questions; or, the lessons may consist of a series of questions and answers similar to the following model:—

North America.—After the diagram is made, the class is prepared to draw the map,—first, with the atlas in hand, and afterwards from memory. Every order given by the teacher should be executed by the class simultaneously, and with military promptness and precision. The execution should commence immediately after the last word of the order is given. Each pupil is supposed to have his own diagram on the board upon which he draws his map.

Outline: Teacher.—What is the most northern point of North America?

Scholars.—Point Barrow.

T.—Show where Point Barrow is located. In what direction from it is Cape Charles?

S.—South-east.

T.—Point where Cape Charles is located. (Scholars point.)

Now make a dot showing the location of each of the following places between these two Capes:—1st. For Cape Bathurst. (Scholars made the dot with the crayon.) 2d. For Victoria Land. 3d. For the northern extremity of Melville Pena. 4th. For Hudson Strait. What large bay between Melville Peninsula and Hudson Strait?

S.—Hudson Bay.

T.—5th. For the southern extremity of Hudson Bay. (Dot.) 6th.

For Cape Chidley. What bay south-west from Cape Chidley?

S.—Ungava Bay.

T.—Draw the coast-line from Point Barrow to Cape Bathurst. (Scholars draw.) From Cape Bathurst to Victoria Land. From Victoria Land to Melville Peninsula. Draw Hudson Bay and James Bay. Draw the line from Hudson Strait to Cape Charles.

The teacher should now make a brief inspection of the work done, and point out and correct all the faults made.

In this manner the outline of North America should be completed.

Mountains: T.—How far do the Rocky Mountains extend?

S.—Through the entire length of North America.

T.—What is their elevation?

S.—Between 8,000 and 16,000 feet, except the northern portion, which is only between 2,000 and 8,000 feet.

T.—Draw the Rocky Mountains nearly parallel with, and at a proper distance from the Pacific Coast. What range in the eastern part of the Continent?

S.—The Appalachian Mountains.

T.—What is the elevation of this range?

S.—About 2,000 feet.

T.—Draw it. The teacher should now inspect the drawing of the mountains and correct mistakes.

Lakes: T.—What three lakes have their outlet through the Mackenzie River?

S.—Great Bear Lake, Great Slave Lake, and Athabasca Lake.

T.—Point where the first is located; the second; the third. Draw the first; the second, the third.

In this manner complete the drawing of the lakes.

Rivers: T.—Describe the Yukon River.

S.—It rises near the Pacific Coast and west of the Great Slave Lake; flows, first, in a north-westerly direction, then westerly through the country of Alaska, and empties into Behring Sea.

T.—Draw it. Follow in the same manner with the Mackenzie; Nelson; Albany; St. Lawrence; Ottawa; Savannah, and Alabama.

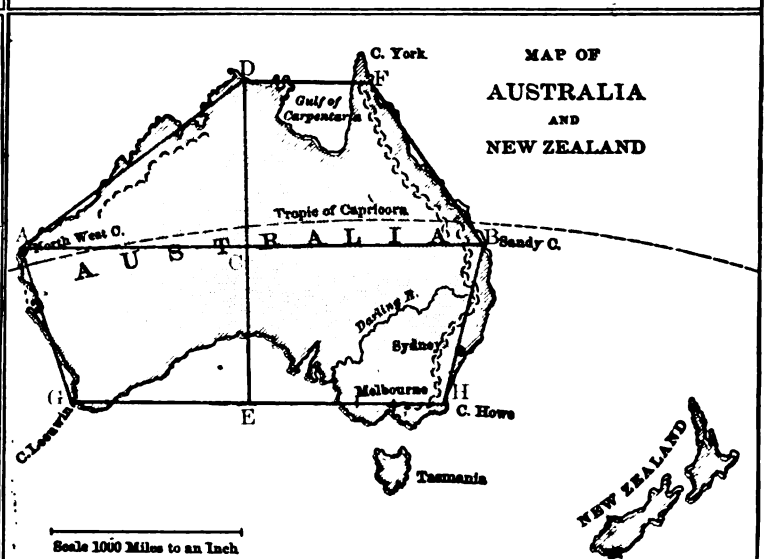
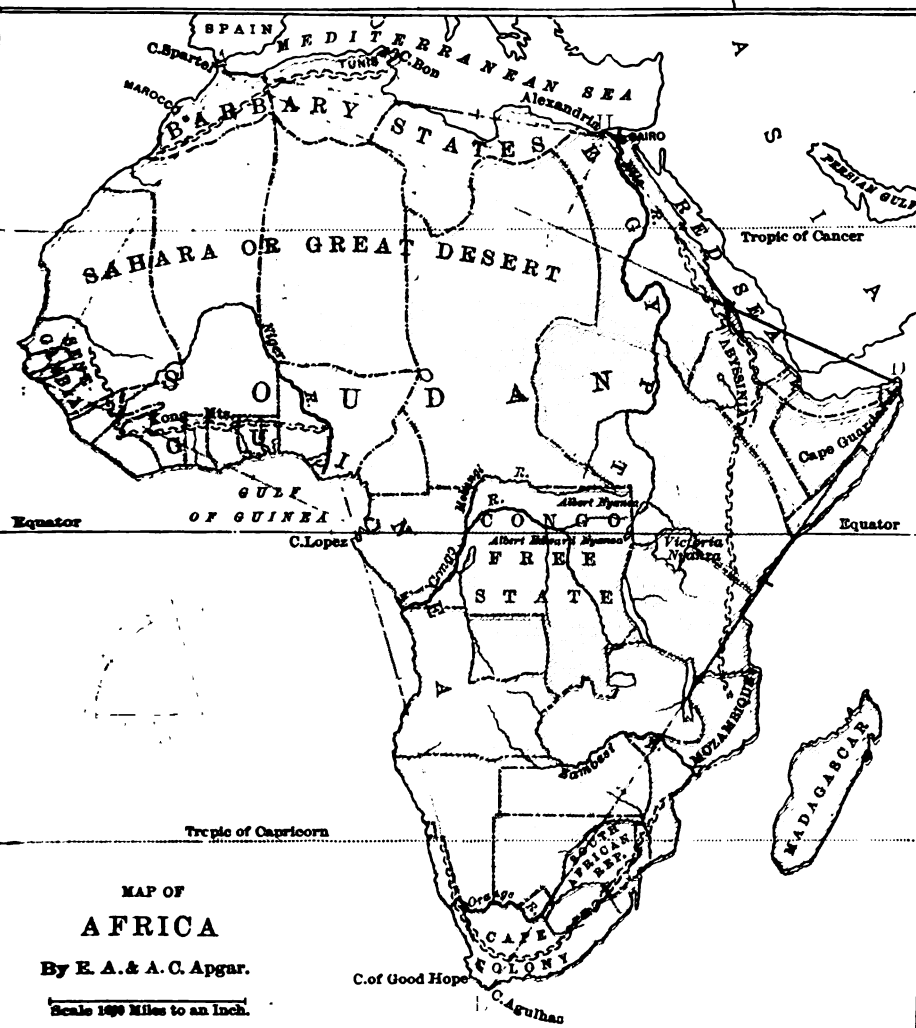
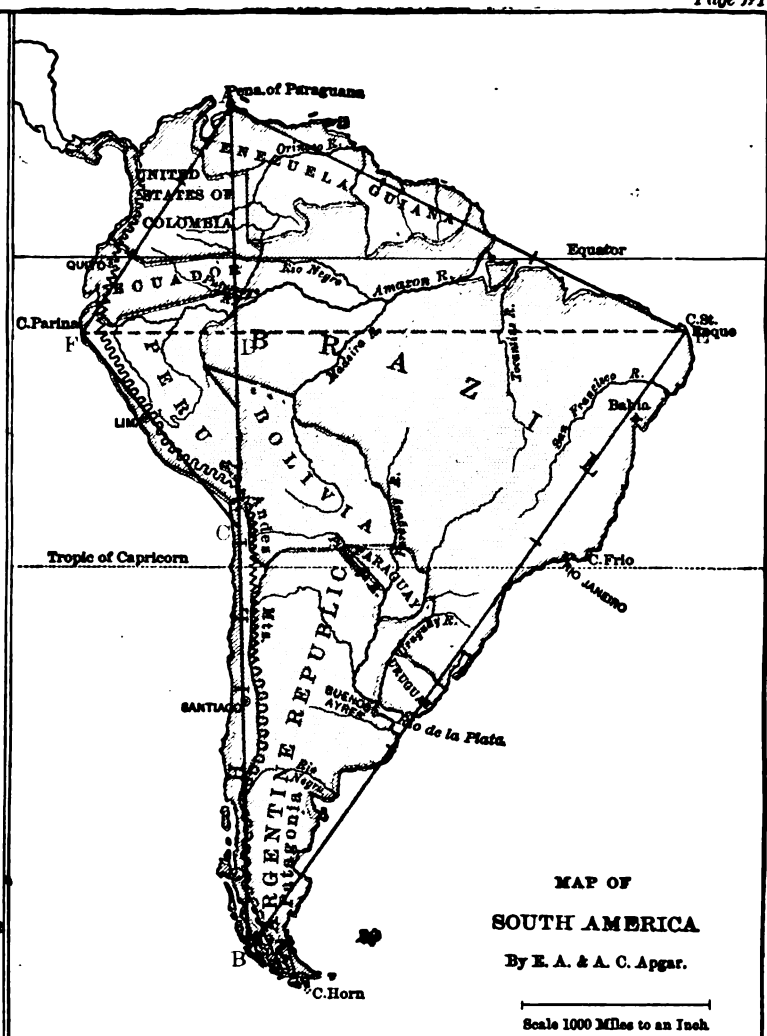
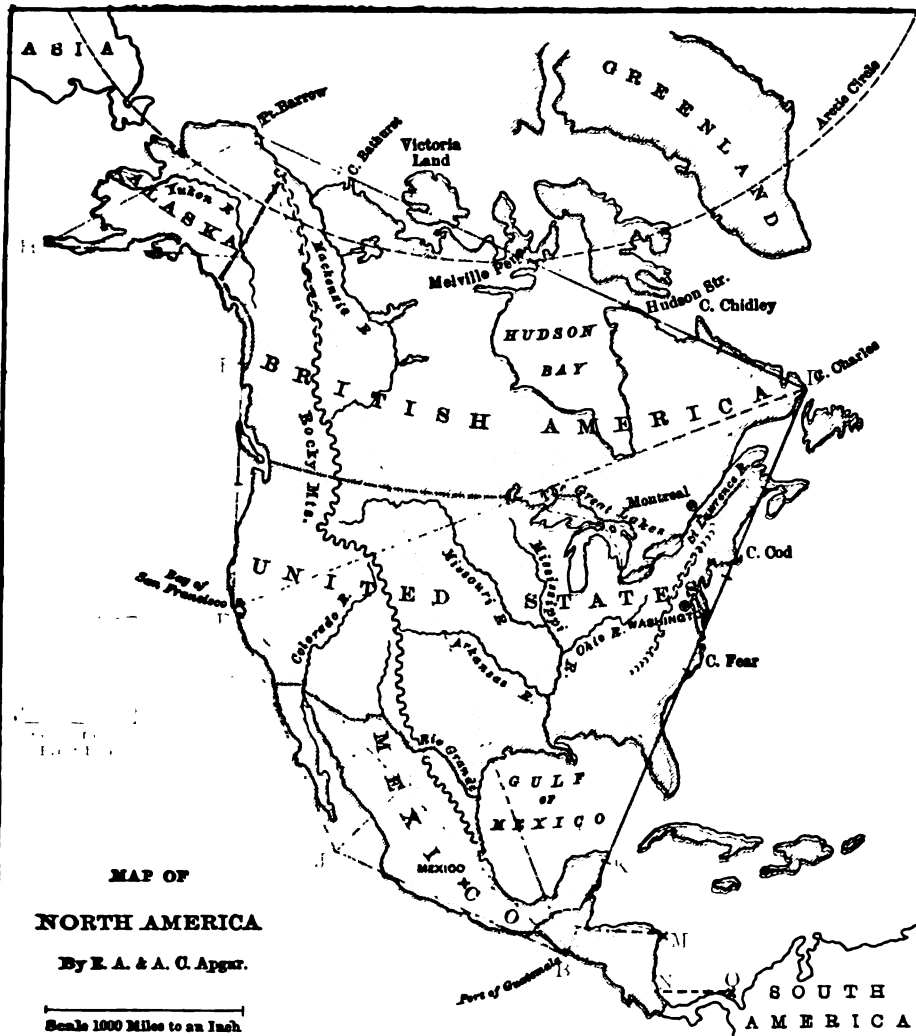
T.—Describe the Mississippi River.

S.—It rises in a small lake west of Lake Superior, and south of the Lake of the Woods. flows a southerly course through the United States, and empties into the Gulf of Mexico.

T.—Draw it. Draw the tributaries, and describe them.

Complete the rivers in this way, and inspect the work.

Cities: T.—Locate the cities as I name them, taking pains to show the population of each as it is done in the book.



DIRECTIONS FOR DRAWING AUSTRALIA.

Diagram.—1. Draw the horizontal line *AB* the length desired for the map, and bisect it at *C*.

2. Through the centre *C* draw the line *DE* at right angles to *AB*, making *CD* and *CE* each one-third the length of *AB*.

3. Draw *DF* at right angles to *DE*, and one-fourth the length of *AB*, and connect *F* and *B*.

4. Draw *GH* at right angles to *DE*, making *GE* and *EH* each equal to *FB* in length, and bisect the lines *CE* and *EH*.

Points of Coincidence.—North-west Cape coincides with the angle at *A*; Sandy Cape, with the angle at *E*; Cape Howe, with the angle at *H*; and Cape Leeuwin, with the angle at *G*. Cape York is a little north of the angle at *F*.

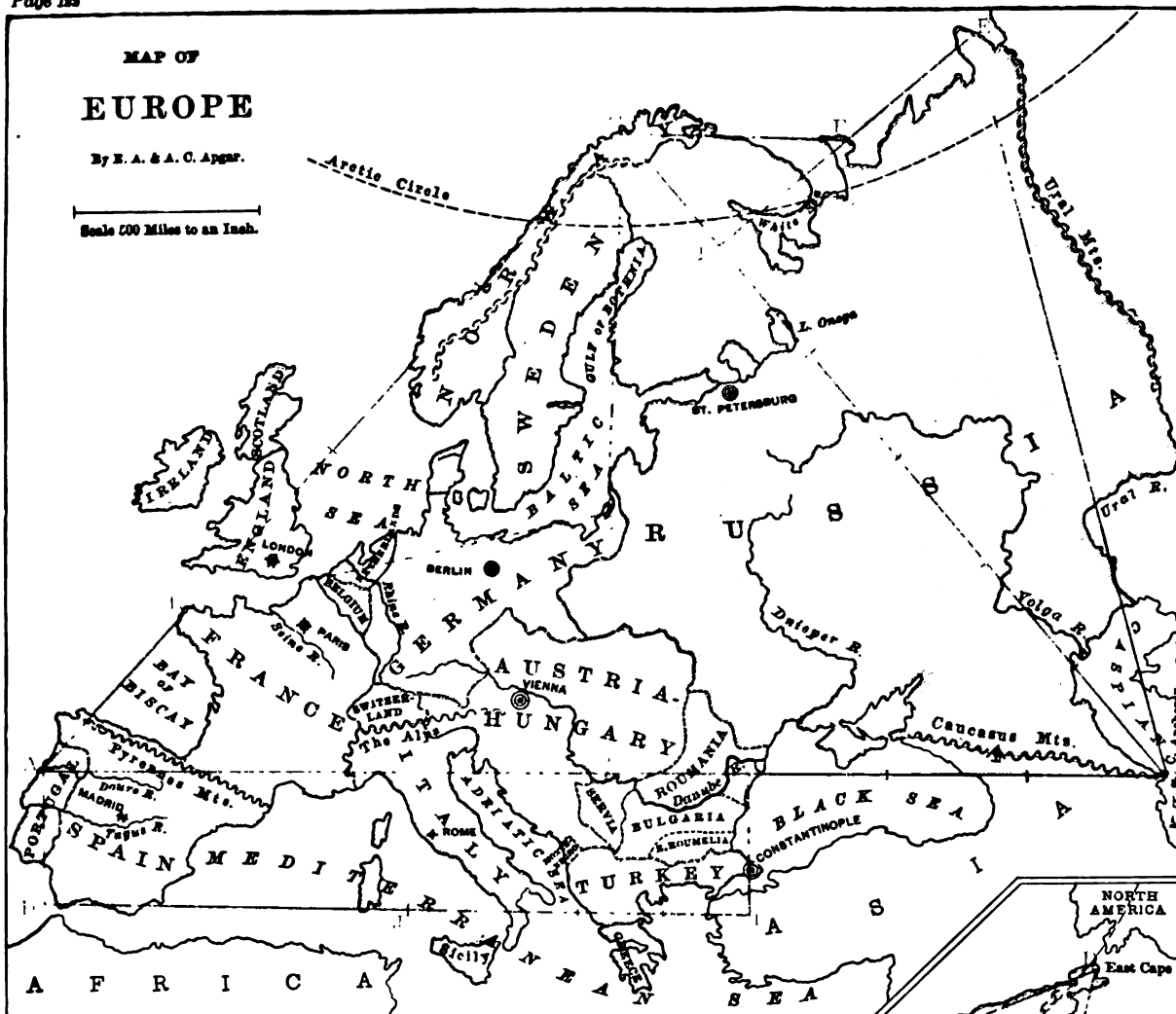
Map.—From *G* the coast extends toward the centre of the line *CE*, and from this point it extends toward and crosses near the bisecting point of the line *EH*.

The Gulf of Carpentaria is situated between *D* and *F*, and extends toward the south nearly half way to the line *AB*.

MAP OF EUROPE

By E. A. & A. C. Appar.

Scale 700 Miles to an Inch.



DIRECTIONS FOR DRAWING EUROPE.

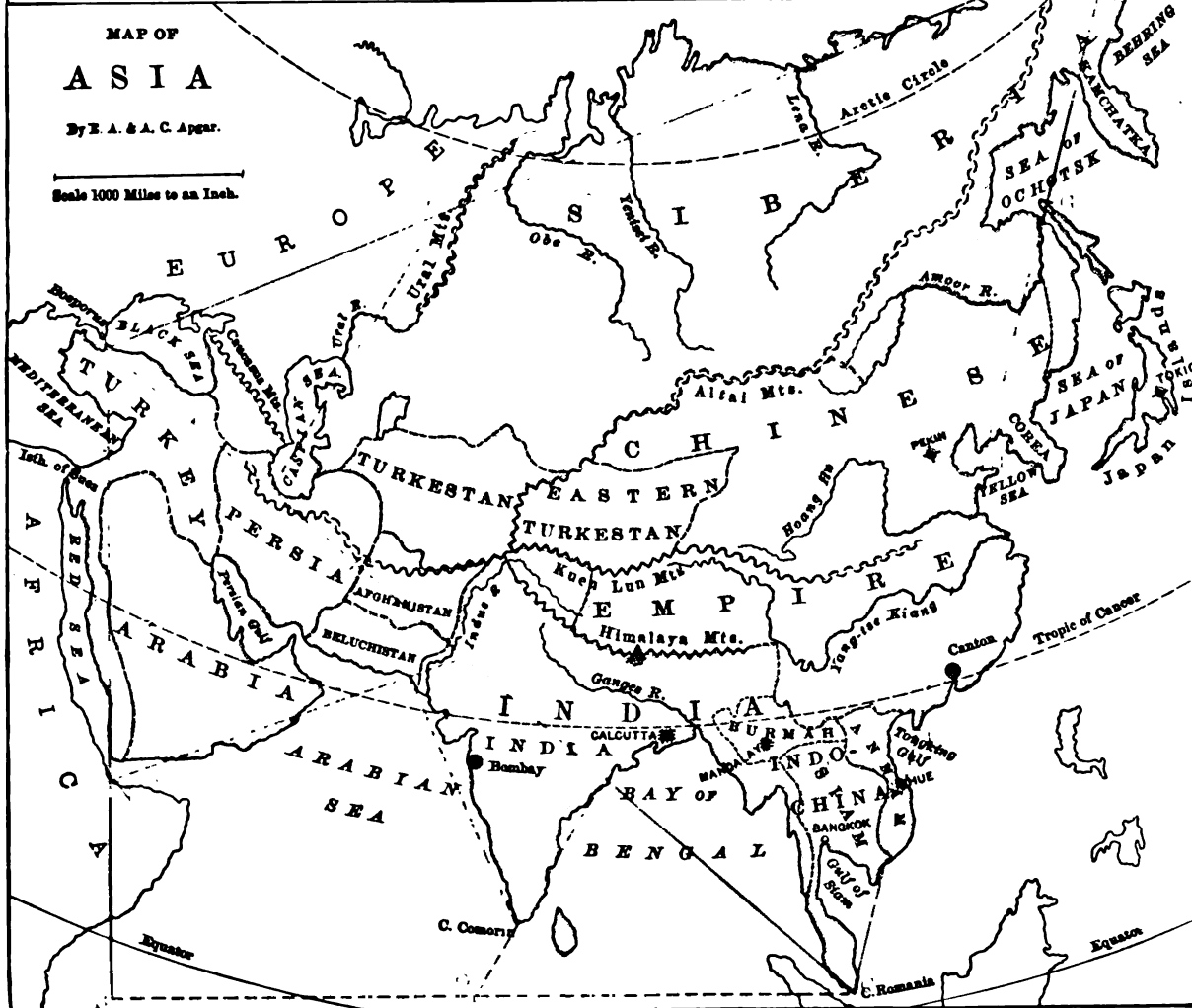
Diagram.—Draw the horizontal line *A B* the length desired for the map. This line connects the mouth of the Douro River with Cape Apheron. Its length is 3,000 miles. With *A* and *B* as centres, and with a radius equal to three-fourths of *A B*, draw arcs to intersect at *C*, and connect *A* and *C*, and *B* and *C*. Divide *A C* into four, *C B* into six, and *A B* into eight equal parts. From the first division to the right of *C*, and from the angle *A* draw vertical lines, as shown in the figure, each one-eighth the length of *A B*. Connect *H* and *I*, and divide the right-hand half of this line into four equal parts. From *D* draw a perpendicular line equal to two and one-half divisions on the line *A B*, and bisect it. Connect *C* and *F*, and *E* and *B*. From *K* draw a line in the direction of the centre of *C B* until it meets a vertical line drawn from the angle *C*.

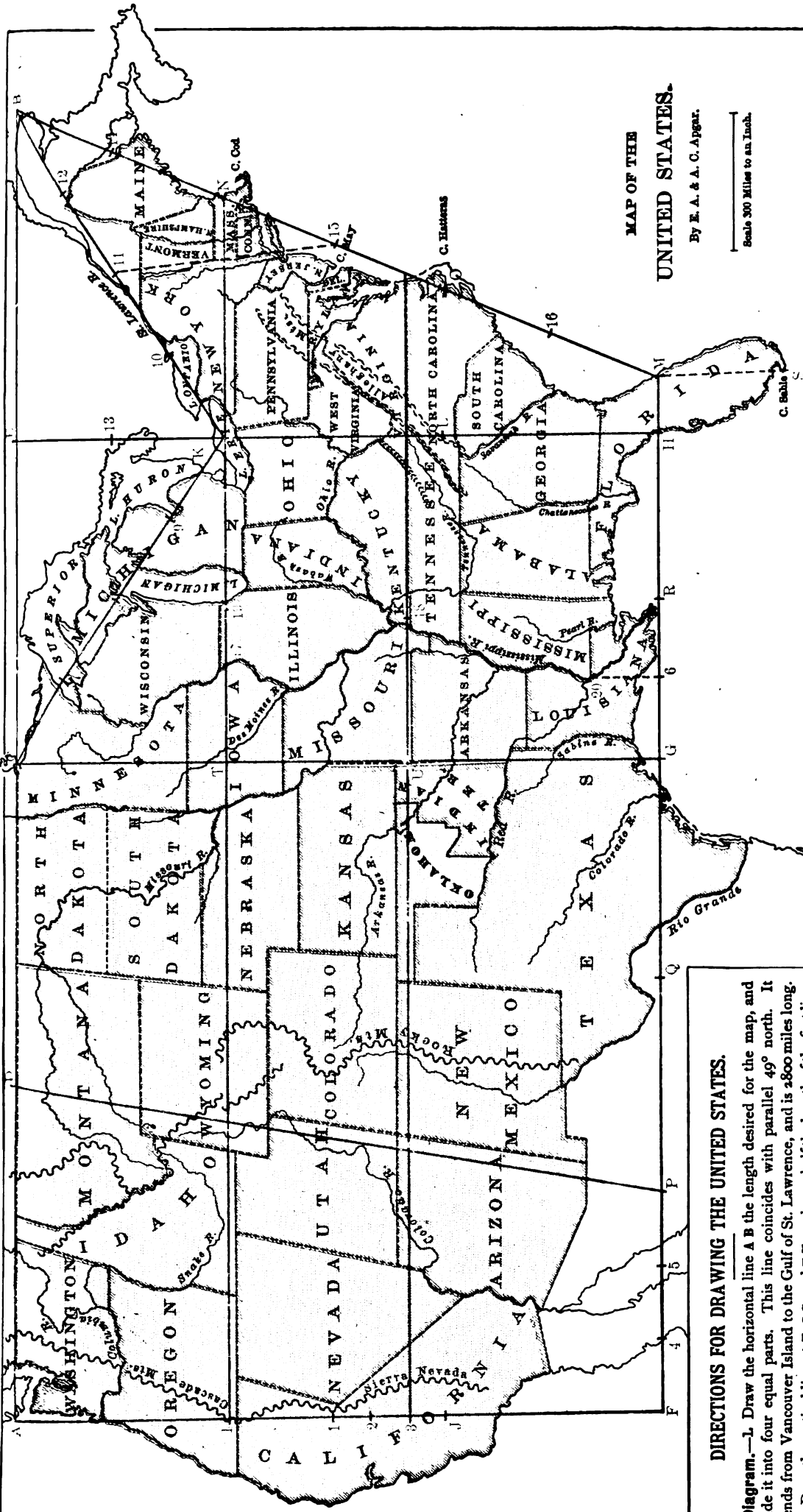
Map.—In drawing the map commence at *c*, on the coast of Norway, and draw, in order, the northern and eastern boundaries; then commence again at *C* and draw the western and southern boundaries. The coast of Norway follows the line *C A*, and extends south to a point about midway between *C* and *K*. The lines *C L* and *L K* will assist in drawing the Gulf of Bothnia, the Baltic Sea, and the north-western shores of Germany and France. The head of the Bay of Biscay is near the first division to the right of *A*, on the line *A B*. The Gulfs of Lions and Genoa are on opposite sides of the second division, and the head of the Adriatic Sea embraces the third division. The fifth division marks the western extremity of the Black Sea; the Sea of Azov is north of the sixth division, and the eastern extremity of the Black Sea is near the seventh. Italy resembles in outline the shape of a boot. The southern extremity is between the first and second divisions to the right of *A* on the line *A B*. The Peninsula of Greece is situated between the second and third divisions, and extends south of this line equal to one division. The Sea of Marmora is a little north of *L*.

DIRECTIONS FOR DRAWING ASIA.

Diagram.—Draw the vertical line *A B* a little more than one-half the length desired for the map, north and south. Divide it into three equal parts, and the upper third into two parts. From the point *B* draw the horizontal line *B C* one and one-sixth times the length of *A B*. Bisect it, and connect *A* and *C*. Trisect *A C*, then bisect the middle division and trisect the upper. With the points *A* and *C* as centres, and with a radius equal to one and two-thirds times the first line, draw arcs to intersect at *D*, and connect *A* and *D*, and *C* and *D*. Trisect *A D* and bisect the middle division. Divide the line *C D* into four equal parts, and bisect both of the extreme divisions. Draw the lines *E P* and *N L* and bisect them; also one from *O* to *K* and trisect it. From the lower trisecting point on the line *O K* draw a line toward *J* till it meets the line *N L*. The distance measured by the line *A C* is 5,300 miles.

Map.—In drawing the map commence at East Cape and draw in order the eastern, southern, and western boundaries, including the Black Sea; then commence again at East Cape and finish the outline. The shore of Kamchatka crosses at the first division on the line *B C*; the southern shore of the Sea of Ochotsk is at *G*; the Yellow Sea is near the centre of the line at *H*; the Gulf of Tonquin is at *I*; and the Gulf of Siam is near the last division. If we suppose a line drawn from this division-point parallel with the line *A C*, it will assist in determining the position of the Gulf of Siam and the Bay of Bengal. Cape Romania coincides with the angle at *C*, and Cape Comorin with the lower division on the line *O K*. The head of the Persian Gulf is near the centre of the triangle *A N L*. The Strait of Bab-el-Mandeb is at *N*; the Isthmus of Suez between *A* and *H*; and the Strait of Bosphorus, at *A*. The Black Sea extends as far east as the first division on the line *A C*, and the Caspian Sea touches this line at the second division. The position of the Caspian Sea, the Ural River, and the Ural Mountains is determined by the line *N O*.





MAP OF THE UNITED STATES.

By E. A. & A. C. Appar.

Scale 300 Miles to an Inch.

DIRECTIONS FOR DRAWING THE UNITED STATES.

1. Draw the horizontal line A B the length desired for the map, and divide it into four equal parts. This line coincides with parallel 49° north. It extends from Vancouver Island to the Gulf of St. Lawrence, and is 2800 miles long.
 2. Draw the vertical lines A F, C G, and E H, each one-half the length of the first line, and connect F and H. Trisect the line A F at I and J, and the line E H at K and L.
 3. Draw the oblique lines C K and B L. Extend the line F H to M, making G M equal in length to the oblique line C K, and connect B and M.
 4. Trisect the line B M at N and O. Bisect the middle third of the line A F at 1, and trisect the lower half at 2 and 3. From the points I and 3 draw horizontal lines across the figure.
 5. Trisect F G at P and Q, and draw D P. Bisect G H at R. Trisect F P at 4 and 5, and bisect G R at 6. Divide each of the oblique lines, C K and B L, into four equal parts, and bisect the line E K. Also bisect each of the thirds on the line B M.
 6. Mark the point 17, making its distance from T equal to one division on the oblique line C K, and also on the line below mark the point 18, making its distance from U equal to one and one-half divisions on the oblique line. Bisect T M at 19.
 7. Connect the points 11 and 15. From M draw the line M S one-sixth the length of B M. From 6 draw a line north to 20, equal in length to the distance from G to 6.
- Outline.**—1. Draw the forty-ninth parallel from A to C, for the northern boundary of the States, and at C, the centre of the first line, locate the Lake of the Woods. 2. The oblique lines, with their divisions, serve as guides for drawing the Great Lakes and the St. Lawrence. Lake Superior crosses at 7, and its northern shore touches the line A B. The western shore of Lake Michigan crosses at 8 and at 19. Saginaw Bay touches at 9, and the southern extremity of Lake Huron touches between 9 and M.

3. Lake Erie surrounds the point at K; the northern shore of Lake Ontario crosses at 10, and midway between these points is the Niagara River. The northern part of Maine crosses at 12.
4. The line B M, with its divisions, marks the direction of the Atlantic Coast, and the position of several important features. The eastern boundary of Maine crosses at 14, and the southern coast crosses midway between 14 and N. At N the coast again crosses, and forms Cape Cod without the line. Opposite 15 is Delaware Bay, and at O is Cape Hatteras. From this point to M the coast makes quite a bend within the line.
5. At S is Cape Sable. The western shore of Florida crosses at H; at R is the mouth of the Mississippi, and near G is the coast of Texas. At Q is an important bend in the Rio Grande, and south of the middle point between Q and G is the mouth of this river. Between 4 and 5 is the Peninsula of California. The southern boundary of California is midway between 3 and F.
6. The western shore of California is west of the line A F, equal to the distance from 1 to 3. San Francisco Bay is west of 2, and the point where the coast crosses the line A F is south of J, equal to the distance from 3 to J.

- The States.—After completing the outline, draw the Mississippi River, and then draw the States in the following order:—
1. The New England States.
 2. The Middle States.
 3. The Southern States, east of the Mississippi River.
 4. The Western States, east of the Mississippi River.
 5. The five States bordering the Mississippi on the west.
 6. California.
 7. Arizona, New Mexico, Indian Territory, Oklahoma, and Texas.
 8. Nevada, Utah, Colorado, and Kansas.
 9. Washington, Oregon, and Idaho.
 10. Montana, Wyoming, Dakota, and Nebraska.

Note.—The Mississippi River rises a little south of the Lake of the Woods, and flows south-easterly, till it crosses the line I M at 17. It here makes a curve to the east, and then a larger one to the west, and crosses at 18. From this point to 20 it flows a little west of south. From 20 its course is south-east. The Eastern States are all east of the line from 11 to 15. The Middle States are east of the line E M. The northern boundaries of Arkansas, Tennessee, and North Carolina coincide with the horizontal line drawn through U, and the northern boundaries of Arizona, New Mexico, and Indian Territory are a little north of this line. The northern boundaries of California, Nevada, Utah, Idaho, Ohio, Pennsylvania, Connecticut, and Rhode Island are a little south of the line I M. The western boundaries of Missouri, Arkansas, and Louisiana coincide closely with the vertical line C G. The western boundaries of Wyoming, Colorado, and New Mexico lie in the direction of the line D F—that of Wyoming being west of it, and that of Colorado and New Mexico being east of it.

PRONOUNCING AND EXPLANATORY VOCABULARY.

KEY TO THE REPRESENTATION OF SOUNDS.

ay as a in fate;	ä as a in fat;	ï as i in pine;	ö as o in not;	ü as u in pure;	ar as ar in far;	e as e in sun;	th as th in thin;
ah as a in far;	ë or ee as e in meet;	ï as i in pin;	öö as oo in pool;	ü as u in tun;	g as g in get;	z as z in has;	th as th in then;
aw as a in fall;	ë as e in met;	ö as o in note;	öö as oo in good;	ai as a in fare;	j as g in gem;	ch as ch in church;	sh as s in glazier.

a, e, i, o, u, obscure sound, as in organ, term, virgin, other, cur; n as French n, similar to ng through the nose.

A.

Aalborg, *awl'borg*. (Bel castle.)
 Aar, *ar*. (A river.)
 Aasz, *ah'see*. (The rebellious.)
 Abaco, *ah'bah-kö*.
 Abeokuta, *ah-bé-ö-kö'tah*.
 Aberdeen'. (Mouth of the Dee.)
 Aberystwith, *ab-er-ist'with*.
 Abiquiu, *ab-é-kü*.
 Abomey, *ab-ö-may'*.
 Abrejos, *ah-bray'ö-hö*.
 Abrolhos, *ah-bröl'yös*. (Port. "Open your eyes"—i. e., "breakers ahead." So named from the dangerous coast of the islands.)
 Abydos, *ah-bi-dös*.
 Abyssinia, *ab-é-sin't-a*. (Mixed people. So named because the population was composed of many different races.)
 Acapulco, *ah-kah-pööl'kö*.
 Acaray, *ah-kah-ri'*.
 Accomack, *ak-kö-mäk'*. (Ind. Land on the other side, or beyond [the water].)
 Acheen, *äl-cheen'*.
 Achill, *ä-kü*.
 Aconcagua, *ah-kön-kah'-gwah*.
 Acre, *ay'ker* or *ah'ker*.
 Adana, *ah-dah-nah* or *ah-dah'nah*.
 Aden, *ah'den* or *ay'den*.
 Adige, *äd'i-jee* or *ah'dé-jay*.
 Adirondack, *äd-i-rön'däk*. (Ind. He eats bark.)
 Adour, *ahd-öör'*.
 Adrianople, *äd-ri-an-ö'p'l*. (City of Adrian.)
 Adriatic, *äd-ré-ät'ik*. (Named from "Adria," formerly an important city on the Gulf of Venice.)
 Afghanistan, *ahf-gän-ä-tah'n'*. (Country of the Afghans.)
 Africa, *äfr'i-ka*.
 Agra, *ah'grah*.
 Aguilhas, *ah-gööl'yahs*. (Cape Aguilhas, "Cape Needles.")
 Aisne, *ayn*.
 Aix-la-Chapelle, *ayks-lah-shah-pél'*. (Waters of the chapel.)
 Ajaccio, *ah-yah'chö*.
 Ajan, *ah-zahn'*.
 Akaba, *ah-kah-bah*.
 Akita, *ah-ké'tah*.
 Alabama, *äl-a-bah'ma*. (A place of rest.)
 Alamo, *äl'ä-mö*. (A poplar tree.)
 Aland, *awl'land*.
 Alapaha, *äl-äp'a-haw*.
 Alaska, *ay-läs'ka*. (Great country.)
 Albany, *awl'ba-ni*.
 Albemarle, *äl-be-marl*.
 Albuquerque, *ahl-böö-keer'-kay* or *äl-böö-kerk*. (White oak.)
 Alcoy, *ahl-kö'ee*.
 Alderney, *awl'der-ni*.
 Alençon, *äl-ön-sön'*.
 Aleppo, *ay-lép'pö*. (Milk.)
 Aleutian, *ay-lü'sht-an*. (From *aleut*, "a bold rock.")
 Alexandria, *äl-égs-än'dri-a*. (Named from its founder, Alexander the Great.)
 Alexandrowsk, *ah-égs-ahn-drov'*.
 Algeria, *äl-jee'ri-a*.
 Algiers, *äl-jöers'*.

Alicante, *ah-lé-kahn'tay*.
 Allegany (N. Y.), *äl-lé-gay'ni*.
 Alleghany, *äl-lé-gay'ni*. (River of the Allegheny.)
 Allegheny (city), *äl-lé-gay'ni*.
 Aller, *ahl'ler*.
 Allier, *ahl'i-ay'*.
 Almaden (Spain), *ahl-mah-rén'*. (The mines.)
 Almaden (U. S.), *ahl-mah-dén'*.
 Almansa, *ahl-mahn'sah*.
 Albrejos, *ahl-may-ré'ah*.
 Alnwick, *än'nük*.
 Alp. (White; a mountain high enough to be capped with snow. Hence also Height.)
 Alsace, *ahl-sahs'*.
 Altai, *ahl-tä'*. (Gold mountains.)
 Altamaha, *awl-ta-ma-haw'*. (Place of the village.)
 Alton, *awl'ton*.
 Altona, *ahl'to-nah*.
 Altona, *äl-tö'na*.
 Alvarado, *ahl-vah-rah'rá*.
 Amarapura, *ahm-ah-ra-pöö'-ra*.
 Amazon, *äm'a-sön*. (Ind. *Amassona*, "boat-destroyer," so named because of the destructive tide called the bore.)
 Amboy, *äm-boi'na*.
 America, *ä-mér'i-ka*. (From Americus Vesputius.)
 Amherst, *äm'ers'*.
 Amiens, *äm-mi-äs*.
 Amiranthe, *äm-é-rant'*.
 Amoo (or Amu), *ah-möör'*.
 Amoor (or Amur), *ah-möör'*.
 Amoskeag, *äm-ös-käg'*.
 Amoy, *ah-moi'*.
 Amsterdam, (From *Amstel-dam*, "dam [or dike] of Amstel.")
 Anadir, *ahn-a-deer'*.
 Ancona, *ahn-kö'nah*.
 Andaman, *än-da-män'*.
 Andes, *ändez*. (Copper.)
 Andorra, *ahn-dör'rah*.
 Andros, *än'drös*.
 Androsoggin, *än-drös-kög'-gin*. (Originally *Amastoko-gin*, "fish-spearing.")
 Andujar, *ahn-döör'char*.
 Angara, *ahng-gah-rah'*.
 Angers, *äng'zay*.
 Anglessea, *äng'g'l-see*.
 Angola, *äng'gö-la*.
 Angostura (ahn-gös-töör'rah).
 Angoulême, *äng-gööl-aym'*.
 Anguilla, *äng-gil'la*.
 Annam, *än-näm'* or *än-nahm'*.
 Annapolis. (Anne City.)
 Antananarivo, *ahn-tah-nah'-nah-ré-vöör'*.
 Antarctic, *än-tärk'tik*. (Opposite the Arctic.)
 Antequera, *ahn-tay-kay'rah*.
 Anticosti, *än-ti-kös'ti*.
 Antigua, *ahn-té'ga*.
 Antilles, *än-tee'el'* or *ahn-äl-leez*.
 Antioch, *än'ti-ök*.
 Antioquia, *ahn-té-ö-ké'a*.
 Antongil, *ahn-tön'zhél'*.
 Antwerp. (Added. So called because built upon successive deposits of the river Scheldt.)
 Apache, *ah-pah'chay*.
 Apennines, *äp-en-ninz*.
 Appalachee, *äp-pa-läch'ee*.
 Appalachian, *äp-pa-läy'ch'än*.

Appalachicola, *äp-pa-läch-i-kö'la*. (Town of the Appalachites.)
 Appomattox, *äp-pö-mät'toks*.
 Arabia, *a-ray'bi-a*. (West; also Merchandise.)
 Araguay, *ah-rah-gwä'*.
 Aral, *är'al*. (Sea of Aral, "sea of islands.")
 Aranjuez, *ah-rah-n-chweth'*.
 Ararat, *är-a-rät'*.
 Araucania, *ä-raw-kah'né-ah*.
 Archangel, *ark-äyn'jél*.
 Archipelago, *är-ké-pél'a-gö*.
 Arctic, *ärk'tik*. (From *arctos*, "a bear." It signifies "northern," because the constellation called the Great Bear lies toward the North Pole.)
 Ardennes, *är-dén'*. (Heights.)
 Arequipa, *ah-ray-ké'pah*.
 Argentine, *är-jén-tän*. (Silver.)
 Arica, *ah-ré'kah*.
 Arizona, *är-i-sö'na*. (Sand hills.)
 Arkansas, *är-kän'zäs* or *är-kän-saw*. (From the French *arc*, "a bow," and the Indian *kansas*, "smoky water.")
 Armagh, *är-mah'*.
 Armenia, *är-mé-ni-a*.
 Arnheim, *är'ném*.
 Aroostook, *ä-röös'töök*. (Ind. Good river.)
 Arras, *är-rah's*.
 Ascension, *äs-sén'shün*. (Ascension Island; so named because it was discovered on Ascension day, 1501.)
 Ascutney, *äs-küt'né*. (Ind. Fire mountain.)
 Ashantee, *ä-shän'tee* or *ahsh-än'tee*.
 Asia, *äsh'i-a*. (Land of the dawn.)
 Assam, *äs-säm'*.
 Assiniboia, *äs-sin-i-boi'ya*. (Country of the "Stone Sioux," a wandering Indian tribe.)
 Assouan, *äs-sö-ahn'* or *ahs-swahn'*.
 Astrakhan, *äs-trah-kahn'*.
 Asuncion, *äs-söön'ä-on*.
 Atacama, *ah-tah-kah'mah*.
 Atbara, *ah-tah-rah'*.
 Atchafalaya, *ätch-äf-a-ti'a*. (Lost water, or Long river.)
 Athabasca, *ätch-a-bäs'ka*. (Swampy.)
 Athens, *äh'tenz*. (From *Athene*, the goddess of wisdom.)
 Atlantic, (The sea beyond Mt. Atlas.)
 At'las. (The Atlas Mountains were named from Atlas, an ancient king who was said to have borne the world on his shoulders.)
 Auburn, *aw-burn*. (Old brook.)
 Auch, *ösh*.
 Auckland, *awl'känd*.
 Angela, *aw-jé'lah* or *öw-jé-lah*.
 Augsburg, *öwgs'böörög*.
 Augusta, *aw-güs'ta*. (Noble.)
 Aurillac, *ör-ré-yahk'*.
 Au Sable, *aw-sah'bl*.
 Australasia, *aws-träl-äsh'i-a*. (Southern Asia.)
 Australia, *aws-tray'ti-a*. (Southern land.)
 Austria, *aws-tri-a*. (Eastern empire.)

Auvergne, *ö-vayrn'*.
 Aux Cayes, *ö-kay'*.
 Auxerre, *ö-sayr'*.
 Ava, *ah'vah*.
 Avignon, *ah-vén-yön'*.
 Avon (Eng.), *ay'von*. (A river.)
 Axum, *ähk-sööm'*.
 Azores, *ä-zörs'*. (Port. *agor*, "a hawk." Hawks are numerous on these islands.)
 Azov, *äs'öu* or *ah-söu'*.

B.

Baalbec, *bahl-bék'*.
 Bab el Mandeb, *bäb-él-mahn'deb*. (The gate of tears; so called on account of the numerous shipwrecks in this strait.)
 Badajoz, *bahd-a-hörs'*. (Arab. Land of life, or health.)
 Baden, *bah'd'n* or *bäd'n*. (The baths.)
 Baeza, *bah-ay'thah*.
 Bagdad, *bahg-dahd'*.
 Bagur, *bah-göör*.
 Bahamas, *ba-hay'mas*.
 Bahia, *bah-é'ah*. (The harbor.)
 Baikal, *bi'kahk*. (Rich lake.)
 Balearic, *bäl-é-är'ik*. (From *Gr. ballein*, "to throw," because the inhabitants were noted slingers.)
 Balize, *bah-lees'*. (A corruption of *Wahls*, which the Spaniards called this place because it was the resort of Wallace, a noted pirate.)
 Balkan, *bahl-kahn'*.
 Balkash, *bahl-kahsh'*.
 Ballarat, *bäl'a-rät'*.
 Balmoral, *bäl-mör-äl'*.
 Balsas, *bahl'sahs*.
 Baltic, *bawl'tik*. (Full of belts or straits.)
 Assam, *äs-säm'*.
 Baltimore, *bawl'ti-mör*.
 Banca, *bängk'a*.
 Banff, *bämf'*.
 Bangkok, *bäng-kök'*.
 Bangor, *bäng'gör*. (High choir.)
 Bangweolo, *bäng-wé-ö'lö*.
 Banialuka, *bahn-yah-löö'kah*.
 Baracoa, *bah-rah-kö'ah*.
 Baranoff, *bah-rah'n'öf'*.
 Barbadoes, *bar-bay'dos*.
 Barbary, *bar'ba-ri*. (A desert, or barbarian.)
 Barbuda, *bar-böö'da*.
 Barcelona, *bar-se-lö'nah*.
 Barfleur, *bar-flur'*.
 Bari, *bar'ree*.
 Barilochi, *bar-é-lö'chee*.
 Barquisimeto, *bar-kay-sé-may'tö*.
 Basle, *bahl*. (Queen.)
 Batabano, *bah-tah-bah-nö'*.
 Batavia, *ba-tay'ti-a* or *bah-tah'ti-ah*.
 Bathurst, *bah't'urst*.
 Batiscan, *bah-tés-kön'*.
 Baton Rouge, *bät-än-rööz'h*. (Red stick.)
 Bavaria, *ba-vay'ri-a*. (Lat. Land of the Boii.)
 Baylen, *bi-lén'*.
 Bayona, *bah-yö'nah*.
 Bayonne, *bay-yön'*.
 Bayou La Fourche, *bi'öo-lah-föörsh*.
 Bayreuth, *bi'rüth*.
 Beaumont (U. S.), *bü'für*.
 Beauharnois, *bö-ahr-nwah'*.
 Beaumaris, *bö-may'ris*.
 Beauvais, *bö-vay'*.
 Bechuana, *bé-chöö-ah'nas*.

Bedouin, *béd'öö-in*. (Inhabitant of the open land.)
 Begharmi, *ba-gar'mee*.
 Behring, *bé'ring*.
 Beirut, *bay'rööt*.
 Beja, *bay'zhah*.
 Beled el Jerid, *bél-ed-él-jér-ed'*. (Land of dates.)
 Belem, *bay-lén'*.
 Belfast, *bél-fahst'*. (Town by the sand-bank in the river.)
 Belgium, *bél'ji-üm*. (Lat. Country of the Belgæ, who dwelt along the Bolga or Volga.)
 Belgrade, *bél-grayd'*. (White city.)
 Belle Isle, *bél'il'*. (Beautiful island.)
 Belmonte, *bél-mön'tay*.
 Beloit, *be-loit'*.
 Beluchistan, *bél-öö-chi-tah'n'*. (The country of the Beluchees.)
 Bemini, *bay-mé'nee*.
 Benares, *bén-är-rés*.
 Bengal, *bén-gawl'*.
 Benguela, *bén-gay'lah*.
 Benicia, *bé-nish'i-ah*.
 Benin, *bén-en'*.
 Benisouef, *bén-é-swé'f*.
 Benjarmassin, *bén-yar-mahs'-sin*.
 Ben Lomond, *bén-lö'm'nd*. (Beacon mountain.)
 Ben MacDhui, *bén-mä-k-döo'ee*.
 Ben Nevis, *bén-né-vis*. (Cloud-capped mountain.)
 Benue, *bén-öö-é'*.
 Ben Wyvis, *bén-wi'vis*.
 Bergen (U. S.), *ber'gen*.
 Bergen (Norway), *ber'gen*. (Mountains.)
 Berlin (Prus.), *bér-leen'*. (Uncultivated land.)
 Bermudas, *bér-mü'duz*. (Named after Bermudez, their discoverer, 1522.)
 Berne, *bern*. (A bear.)
 Besançon, *bé-zän'sön*.
 Bhotan, *bööt'tän*.
 Biafra, *be-ä'fra*.
 Biddeford, *büd'dé-ford*.
 Bilbao, *bil-bah'ö*.
 Binghamton, *bäng'am-ton*.
 Bir, *beer*.
 Birmingham, *ber'ming-üm*. (Broom-place-dwelling.)
 Bis'cay. (A forest.)
 Bismarck, *bis'mark*.
 Bisteneau, *bis-tén-ö'*.
 Blanco, *blän'kö*. (White.)
 Blenheim, *blén'im*.
 Blois, *blwah*.
 Boavista, *bö-ah-vés'tah*.
 Bochnia, *bök'né-ah*.
 Boers, *bö'erz*.
 Bogota, *bö-gö-tah'*.
 Bohemia, *bö-hé'mi-ah*.
 Bohmerwald, *bér-mer-vahl'*. (Bohemian forest.)
 Boisé, *boi'ze* or *bwah'zay*. (Woody.)
 Bojador, *böd-jah-dör'*.
 Bokhara, *bök-ah'rah*. (Treasury of sciences.)
 Bolivia, *bö-li-vi-a*. (Named from General Bolivar.)
 Bologna, *bö-lön'yah*.
 Bolor, *bö-lör'*. Bolor Tagh [mountains]. (The roof of the world.)
 Bombay'. (Good bay.)
 Bonifacio, *bö-né-fah'chö*.
 Bonin, *bö-nén'*.
 Boothia, *bööt'thi-a*.
 Bordeaux, *bör-dör'*. (Border of the waters.)

Borne, *börn*.
 Borneo, *börn'né-ö*.
 Born'holm. (Island of the Burgundians.)
 Bosnia, *bös'né-ah*.
 Bosporus, *bös-pö-rüs*. (Orford.)
 Bos'ton. (St. Botolph's town.)
 Bothnia, *böth'né-a*. (Deep sea.)
 Bougainville, *böö-gän-veel'*.
 Boulogne, *bööl-lön'*.
 Bourbon, *böör'bün* or *böör'bör'*.
 Bourges, *böörzh*.
 Bowdoinham, *bö'den-ham*.
 Braganza, *bragh-gahn'sah*.
 Brahm or Brahma. (The Hindu deity.)
 Brahmaputra, *bräh-mah-pööt'rah*. (Son of the Creator.)
 Brazil'. (So named from the color of Brazil wood, which was thought to resemble the color of glowing coals in a brazier.)
 Brazos, *bräh'zäs*.
 Brede, *bray'de* or *breed*.
 Bremen, *brém'en* or *bray-men*.
 Breslau, *brés'law* or *brés'low*.
 Brest. (Great port.)
 Bruges, *brü'jes* or *brüsh*. (Bridges.)
 Brunn, *brün*.
 Brusa, *bröös'sah*.
 Brussels, *brüs'sels*.
 Bucharest, *bü'ka-rést*. (City of enjoyment.)
 Buda Pesth, *bööd-pésh't*.
 Buddha, *bööd'da*.
 Buddhism, *bööd'ism*.
 Budweis, *bööd'vis*.
 Buena Esperanza, *büay'nah-sé-pay-rah'n'sah*.
 Buen Ayre, *büén-i'ray*.
 Buenos Ayres, *büay'nös-i-rä*. (Good air.)
 Bug, *böög*.
 Bulgaria, *bööl-gay'ri-a*. (Country of the *Volgarians* or *Huns*.)
 Burgos, *böör'gös*.
 Bushire, *böös-shér'*.
 Butte, *büte*.

C.

Cabriel, *kah-bré'él'*.
 Cabul, *kah-bööl'*.
 Cacao, *ka-kay'ö*.
 Caceres, *kah'thay-rés*.
 Cachoeira, *kah-shö-ay'é-rah*.
 Cadiz, *kay'dis*. (Shut in.)
 Caen, *kön*.
 Caernarvon, *ker-nar'von*.
 Caffraria, *kaf-fray'ri-a*. (Country of the Caffirs or Infidels, a name given by the Arabs to all who did not accept the Mohammedan religion.)
 Cagliari, *kahl'yah-ree*.
 Cahaws, *ka-haw'ba*.
 Cahors, *kah-örs*.
 Cairo (U. S.), *kay'rö*. (The victorious.)
 Cairo (Egypt), *kä'rö*. (The victorious.)
 Calais (U. S.), *käl'is*.
 Calais (France), *käl-lay'*.
 Calcasieu, *kahl'ka-shü*.
 Calcutta, *käl-küt'ta*. (The temple of the goddess of Time.)
 Caldera, *kahl-day'rah*.
 Callao, *kahl-lah'ö* or *kahl'yah'ö*.

General, *zhay-rah'l'*.
 Germany, *jer'ma-ni*. (Lat.
Germania, from "Wehr-
 man"—i. e., "war man"—
 was changed by the Ro-
 mans into German; hence
 the name of Germany.)
 Gettysburg, *gét'tiz-burg*.
 Geyser, *gi'ster*.
 Ghauts, *gaw'ts*. (Gates or
 passes.)
 Ghent, *ghént*.
 Gibraltar, *ji-braw'l'tar*. (In
 the eighth century Tarif,
 with an army of Saracens,
 landed here and built a
 castle on the rock, which
 was called Gib el Tarif,
 "the Mountain of Tarif,"
 whence the present name.)
 Gila, *hê'lah*.
 Gilolo, *hê-lô' lô*.
 Giregh, *jêr'r'je*.
 Gironde, *zhê-rônd'*.
 Glacier, *glay'ser*.
 Glasgow, *glas'gô*. (Dark
 ravine.)
 Glogau, *glô'gou*.
 Gloucester, *glôs'ter*. (Fair
 city.)
 Glückstadt, *gluck'stâht*.
 Gobi, *gô'bee*. (Sea of sand.)
 Godavere, *gô-dah'ver-i*.
 Godhaven, *gôd'houn*. (Good
 haven.)
 Godthaab, *gôd'tahb*. (Good
 hope.)
 Goliad, *gô-li-âd'*.
 Gonaives, *gô-nah-êv'*.
 Gondokorro, *gôn-dô-kô'ro*.
 Gotha, *gô'tah*.
 Goth'land. (Land of the
 Goths or Good land.)
 Gottenburg, *gôt'en-burg*.
 Göttingen, *gét'ting-en*.
 Gouverneur, *gôôv-er-nôôr'*.
 Gozo, *gô'zô*.
 Gracias, *grah'se-ahs*.
 (Thanks.)
 Gracias a Dios, *grah'sê-ahs-
 ah-dê'ôs*. (Thanks to God!)
 Granada, *grah-nah'dah*.
 Great Britain, *brît'i'n*.
 Greenwich (U. S.), *grên'wich*.
 Greenwich (Eng.), *grîn'tj*.
 Grenoble, *gre-nô'bl*. (City
 of Gratian.)
 Griqua, *grê'kwa*.
 Groningen, *grô'ning-hen*.
 Grosswardein, *grôs-var'dîn*.
 Guadaluara, *gwah-dah-lah-
 hah'rah*.
 Guadaluquivir, *gwah-dahl-kê-
 ver'*. (The great river.)
 Guadalupe, *gaw-da-lôôp'* or
gwah-dah-lôô'pay.
 Guadeloupe, *gwah-dah-lôô'-
 pay* or *gaw-da-lôôp'*. (Wolf
 river.)
 Guadiana, *gaw-dê-ah'nah*.
 (River of joy.)
 Guanaco, *gwah-nah'kô*.
 Guanahani, *gwa-nah-hah'-
 nee*.
 Guafape, *gwahn-yah'pay*.
 Guanaxuato, *gwah-nah-
 huan'hô*.
 Guardafui, *gwahr-da-fwê'*.
 Guardia, *gwar-dê-ah*.
 Guatemala, *gwah-tay-mah'-
 lah* or *gaw-tê-mah'la*.
 Guaviare, *gwah-vê-ah'rê*.
 Guayama, *gwi-ah'mah*.
 Guayaquil, *gwi-ah-keel'*.
 Guaymas, *gwi'mahs*.
 Guernsey, *gern'ze*.
 Guiana, *gê-ah'na*.
 Guinea, *gin'ê*.
 Guyandotte, *gi-an-dôt'*.

 H.
 Haarlem, *har'lem*.
 Hachijo, *hâch-ê-jô'*.
 Hadramaut, *hah-drâh-maw't*.
 Hage, *hayg*. (Count's wood.)
 Hainan, *hi-nahn'*. (South of
 the sea.)
 Hakodate, *hah-kô-dah'tê*.
 Halle, *hah'le*.
 Hamah, *hah'mah*.
 Hammerfest, *hahm'mer-fest*.

Harran, *har-rah'n*.
 Hartz, *harts*. (Forest.)
 Havana, *ha-vā'n-a*.
 Haverhill, *hay-ver-ill*.
 Havre, *hav'r*. (A harbor or haven.)
 Havre de Grace, *hav'er-de-grahs*. (Harbor of grace or safety.)
 Hawaii, *hah-wi'ee*.
 Hayel, *hah-yel'*.
 Hayti, *hay-ti*. (Mountainous.)
 Hebrides, *hēb'rī-dees*.
 Hecla, *hēk'la*.
 Hejaz, *hēj-ahz'*. (Land of pilgrimage.)
 Hel'ena (U. S.).
 Helena (St.), *hēl'ē-na*.
 Heligoland, *hēl'i-gō-lahnd*. (Holy land.)
 Helvel'lyn.
 Henlo'pen. (To run in.)
 Herat, *her-ah't*.
 Herculeaneum, *her-kū-lay-ne-ūm*.
 Hereford, *hēr'e-ford*. (Army ford.)
 Hermanstadt, *hēr'mahn-stadt*.
 Hertberg, *hēr't-bērg*.
 Herzegovina, *hēr't-se-gō-vee-nah*.
 Hesse, *hēs*.
 Hiawasse, *hi-a-wās'see*.
 Hieres, *ē-ayr'*.
 Himalaya, *hīm-ah-lay-ya*. (Abode of snow.)
 Hindu Kush, *hīn-dōō-kōōsh*. (Black mountains.)
 Hindustan, *hīn-dōō-stahn* or *hīn-do-stahn'*. (In Persian the word signifies the "country of the Hindus." It may be derived from *Indus*, a "river.")
 Hizen, *hē-zēn'*.
 Hoang Ho, *hō-ahng-hō'*. (Yellow river.)
 Hol'land. (Muddy or marshy land. Originally Ollant. A large portion of Holland lies below the level of the sea; hence the name Netherlands.)
 Holstein, *hōl'stēn*.
 Holston, *hōl'ston*.
 Holyhead, *hōl'i-hēd*.
 Holyoke, *hōl'yōk*.
 Homs, *hōmz*.
 Hondo, *hōn-dō*. (The mainland.)
 Honduras, *hōn-dōō-ras*.
 Hong Kong', *hōng-kōng'*. (Fragrant streams.)
 Honolulu, *hō-nō-lōō-lōō*.
 Hoogly, *hōōg'li*.
 Houghton, *hōō-ton*.
 Houlton, *hōō-ton*.
 Housatonic, *hōō-sa-ūn'tik*. (Ind. Stream beyond the mountains.)
 Houssa, *hōw'sah*.
 Houston, *hōō's-ton*.
 Huallaga, *wah-lah-yah'gah*.
 Huamanga, *hwa-h-mahn'gah*.
 Hue, *hōō'ay* or *hway*.
 Huesca, *wēs'kah*.
 Hungary, *hūng'ga-rī*. (Name derived from the "Hunni," or "Huns," who took possession of this country toward the close of the fourth century.)
 Huron, *hū'ron*. (A name applied by the French to the Wyandot Indians.)
 Hyderabad, *hi-der-a-bahd'*.

I.

Ibraila, *ē-brah-ē-lah*.
 Ice'land. (Land of ice.)
 Idaho, *i'da-hō*.
 Ilheos, *ēl-yay'ōs*.
 Illi, *ēl'lee*.
 Illimani, *ēl-yē-mah'nee*.
 Illinois, *il-lin-oyz'* or *il-lin-oy'*. (Tribe of men.)
 Indiana, *in-dī-ān'a*. (From "Indian.")

Indianapolis, *in-dī-ān-āp'-o-lis*.
 Indighirka, *in-dē-gīr'kah*.
 Indo-China, *in-dō-chī'na*.
 In'dus. (The sea.)
 Inhambane, *ēn-yahm-bah'-nay*.
 Innspruck, *in'sprōōk*. (Bridge over the Inn.)
 Inverness'. (Mouth of the Ness.)
 Iona, *ē-ō'na*.
 Ionian, *i-ō'nī-an*.
 Iowa, *i'ō-wa*. (Drowsy. The meaning of the Sioux name for the Ioway Indians.)
 Iquique, *ē-kē'kay*.
 Iran, *e-rah'n*.
 Irasu, *ē-rah-sōō'*.
 Ireland, *ir-lānd*.
 Irkutsk, *ir-kōōtsk'*.
 Irrawaddy, *ir-ra-wād'dī* or *ir-ra-wād'dī*. (Great river.)
 Irtysh, *ir'tish*.
 Iser, *ē-zer*.
 Isere, *ē-zayr'*.
 Ishim, *ish'im* or *ish-ēm'*.
 Islay, *i-lay*.
 Ispahan, *is-pa-hahn'*. (A soldier.)
 Itasca, *i-tās'ka*.
 Ivica, *ē-vē'sah*.
 Iztacchuatl, *ē-s-tahk-sē-hwah'tl*. (The white lady.)

J.

Jacmel, *zhahk-mēl'*.
 Jaen, *hah-ayn'*.
 Jaffa, *jāff'a* or *yahf'fah*.
 Jaguar, *jāg-ū-ar'*.
 Jalapa, *hah-lah'pah*. (The medicinal herb *Jalap* owes its name to this town.)
 Jalon, *hah-lōn'*.
 Jamaica, *ja-may'ka*. (Land of wood and water.)
 Janina, *yahn'nē-nah*.
 Jan Mayen, *yahn-mī'ēn*.
 Japan, *ja-pān'*. (Called by the Japanese *Nippon*. *Nip* signifies "origin," and *pon*, "sun"—i. e., "origin of the sun," the east.)
 Jaroslav, *yah'rō-slavh*.
 Jassay, *yah'sē*.
 Java, *jah'va*. (Rice.)
 Javay, *hah-vah-ree'*.
 Jeendana, *jēn-dah'nah*.
 Jérémie, *zhay-ray-mē'*.
 Jersey, *jēr'sh*. (Island of Caesar.)
 Jeru'salem. (Habitation of peace.)
 Jevpore, *jē-pōōr'*.
 Jijiginsk, *jī-jē-ginsk'*.
 Jiloco, *hē-lō'kō*.
 Johannes, *zhō-ahn'nēs*.
 Joliet, *jō'tē-tē*.
 Joliette, *zhō-tē-tē'*.
 Jor'dan. (The flowing.)
 Jorullo, *hō-rōōl'yō*.
 Juan, *hōō-awn'* or *hwahn*.
 Juan de Fuca, *hōō-ahn-dīy-fōō'kah*.
 Juan Fernandez, *jū'ān-fēr-nān'dēz* or *hōō-ahn-fēr-nahn'dēz*.
 Juba, *zhōō'bah*.
 Jujuy, *hōō-huee'*.
 Juniata, *jōō-nī-ū'a*.
 Jura, *jōō'rah*.
 Juria, *zhōō-rōō'ah*.
 Jutay, *zhōō-tē'*.
 Jut'land. (Land of giants.)

K.

Kadiak, *kahd-yāk'*.
 Kagoshima, *kah-gō-shē-mah*.
 Kairwan, *kīr-wahn'*.
 Kalahari, *kah-lah-hah'ree*.
 Kalamazoo, *kāl-a-ma-sōō'*.
 Kamchatka, *kahm-chah't'ka*.
 Kanagawa, *kah-nah-gah'-wah*.
 Kanavha, *kn-naw'wa*.
 Kankakee, *kāng-ka-kee'*.
 Kano, *kah-nō'*.
 Kansas, *kān-zas*. (Smoky water.)

Kara, *kah'rah*. (Black.)
 Kashgar'.
 Kashmir, *kāsh-mēr'*.
 Kaskaskia, *kās-kās'kī-a*.
 Katak'din. (The highest place.)
 Kazan, *kah-zahn'*.
 Kearsarge, *keer'sarj*. (Pine mountain.)
 Keewatin, *kee-wah'tin*.
 Kelat, *kel-ah't'*.
 Kenia, *kē-nē'a*.
 Ken'nebec. (Ind. Long water-place.)
 Kenosha, *ke-nō'sha*. (Ind. Pike river.)
 Kentucky, *kēm-tāk't*. (Ind. Dark and bloody ground, or Head of a river.)
 Keokuk, *kē-ō-kūk*.
 Kermadec, *ker-ma-dēk'*.
 Ke'weenaw.
 Khabur, *kah-bōōr'*.
 Khan, *kawn*.
 Khanate, *kawn'ayt*.
 Kharkov, *kar-kā'p'*.
 Khartoom, *kar-tōōm'*.
 Khedive, *kny-deev'* or *kē'div*.
 Khingan, *kīn-gahn'*.
 Khiva, *kē'vah*.
 Khokan, *kō-kahn'*.
 Kiachan, *kē-ahk'tah*.
 Kichinev, *kīsh-i-nēf'*.
 Kiev, *kē-ēf'*.
 Kilima Njaro, *kil-ē-mahn-jah-rō'*.
 Killarney, *kīl-lar'nē*.
 Kingkitao, *kīng-kē-tah'ō*.
 Kinnaird'. (Head of the heights.)
 Kino, *kē-nō'*.
 Kiölen, *keer-len* or *cheer-len*. (The keel.)
 Kioto, *ke-ō'tō*.
 Kirghis, *kīr-geez'*.
 Kittatiny, *kī-ta-tīn'nē*.
 Kiushiu, *kee-ōō'she-ōō'*.
 Klagenfurth, *klah-gen-fōōrt*.
 Klausenburg, *klaus-en-bōōrg*. (Castle of the defile.)
 Knoxville, *nōks'vīl*.
 Kobe, *kō'bay*.
 Kochi, *kōch'ee*.
 Kolima, *kō-lē'mah*.
 Konieh, *kō'nē-eh*.
 Königgrätz, *kēn'ēg-rēts*. (King's town.)
 Königsburg, *ke'nīg-z-bērg*. (King's town.)
 Kordofan, *kōr-dō-fahn'*.
 Kouka, *kōō'kah*.
 Kuen Lun, *kuēn-lōōn'*.
 Kunchinging, *kōōn-chīn-jīng'gah*.
 Kurile, *kōō'rū*. (Derived from *Kooroo mīsi-i*, i. e., "the road of sea-weeds." *Kooroo* signifies "sea-weed.")
 Kuro-Sivo, *kōō-rō-sē-vō*. (Black water.)
 Kurrachee, *kūr-a-chee'*.

L.

Laaland, *law-lahnd*. (Lowland.)
 Labrador, *lāb'ra-dōr*. (Labrador signifies a "husbandman" or "farmer." This land was called *terra labrador*, "cultivable land," to distinguish it from Greenland.)
 Labuan, *lah-bōō-ahn'*.
 Laccadive, *lāk'ka-dīv*. (Lakara Islands.)
 Lachlan, *lahk-lan*.
 La Crosse, *la-kross'*.
 La Cumbre, *la-kōōm-bray*.
 Ladoga, *lād'ō-ga*.
 Ladrone, *la-drōn'* or *lah-rō-rō'nē*. (Called also the Marian Islands. These were discovered in 1521 by Magellan, and called *Las Islas de los Ladrones*—i. e., "the islands of the thieves.")
 La Fayette, *lahf-ay-ē'*.
 Lagos, *lah'gōs*.
 La Guayra, *lah-gwī'rah*.
 Lahaina, *lah-hī-nah*.

Lahore, *lah-hōr'*.
 Lahsa, *lah'sah*.
 Lamaille, *la-moil'*.
 Lanurek, *lah-mōō-rēk'*.
 Lancaster, *langk'as-ter*.
 Landes, *lōnd*. (Sterile plains.)
 Leon, *lah-ōn'*.
 Laos, *lah'ōs*.
 La Paz, *lah-pahz'* or *lah-pah'th'*. (The peace.)
 La Plata, *lah-plah'toh*. (Silver. Río de la Plata, river of silver.)
 Laramie, *lār'a-mee*.
 Laredo, *la-ray'dō*.
 Larissa, *lar'is'sah*.
 La Rochelle, *lah-rō-shēl'*.
 Lassa, *lah'sah*. (Land of the divine intelligence. The grand temple of Buddha with its gilded dome is here; also the residence of the grand lama.)
 Latakia, *lah'ta-kee'a*.
 Lat'itudo. (From *latitudo*, "breadth." The ancients believed that the globe was a flat plain, and much longer from east to west than from north to south; consequently, they called distance from north to south latitude, as they called distance from east to west longitude—from *longitudo*, "length.")
 Lauenburg, *lau'en-bōōrg*.
 Lausanne, *lō-zahn'*.
 Laybach, *lā'bahk*.
 Lazaro, *lah'zah-rō*.
 Lech, *lēk*.
 Leeuwin, *lay'ū-wīn* or *lew'in*.
 Leh, *lay*.
 Leicester, *lē's-ter*.
 Leipsic, *lē'p'sik*.
 Leiria, *lay-rē'ah*.
 Leith, *lēth*.
 Le Mans, *lū-mōn'*.
 Le'na. (A sluggard. So named on account of its sluggish course.)
 Leon, *lay-ōn'*.
 Lepanto, *lē-pān'tō* or *lay-pahn-tō*.
 Lerida, *lē-rē-dah*.
 Levant'. (The east.)
 Levee, *lē-vē*.
 Lewes, *lē-wēs*.
 Liberia, *lē-bē-rē-a*. (From *Lat. liber*, "free.")
 Lichtensfels, *līk'ten-fēls*. (Mountain of light.)
 Liege, *lēj* or *lē-azh'*.
 Liim Fiord, *lēm-fē-ōrd'*.
 Lille, *lēl*.
 Lima, *lē'mah*.
 Limoges, *lē-mōzh'*.
 Limpopo, *līm-pō'pō*.
 Linthe, *līn'nee*.
 Lippi, *lē'pē*.
 Lisbon, *lē'son*. (A corruption of *Ulyssippo*, from a tradition that Ulysses laid the foundation of the city.)
 Liu Kiu, *lē-ōō'kē-ōō'*.
 Llana, *lah'ma* or *lay'ma*.
 Llandaff, *lān-dāff'*.
 Llano Estacado, *lah'nō-ē-tah-kah'dō*. (Staked plain; so called from the yucca stems, which look like stakes.)
 Llanos, *l'yah'nōs*. (Llanos, "plains." A term applied to the extensive plains of South America—the same as prairies in North America or steppes in Russia.)
 Llerena, *lē-ray-nah*.
 Loango, *lō-āng'gō*.
 Lobos, *lō'bōs*.
 Löffeden, *lōf'fō-dēn* or *lof-fō-dēn*.
 Logroño, *lō-grōn'yō*.
 Loire, *lwar*.
 London, *lūn-dūn*.
 Londonderry, *lūn-dūn-dēr'rē*.
 Lopatka, *lō-pah't'kah*.
 Lopez, *lē'pēs* or *lē'pēth*.
 Lorca, *lōr'kah*.

Lorraine, *lor-rayn'*.
 Los Angeles, *lōs-āng'el-ē*. (City of the angels.)
 Lough Derg, *lōk-dērg'*.
 Lough Erne, *lōk-ēr'n'*.
 Lough Neagh, *lōk-nay'*.
 Louisiade, *lōō-ē-zē-ahd'*.
 Louisiana, *lōō-ē-zē-ah'nā*. (Named after Louis XIV. of France.)
 Louisville, *lōō'is-vīl*.
 Louvain, *lōō-vā'n'*.
 Lubek, *lū'bēk*.
 Lucca, *lōōk'kah*.
 Lucerne, *lōō-ern'*.
 Lucknow, *lūk'nōw*.
 Lüneburg, *lūē-ne-bōōrg*.
 Lupata, *lū-pah'tah*.
 Luxemburg, *lūks-ēm-burg*.
 Luzon, *lōō-zōn'*.
 Lyons, *lē'ōns*. (Hill of the raven.)

M.

Maas, *mahs*.
 Macao, *mah-kah'ō* or *mak-ōw'*. (Seaport.)
 Macassar, *ma-kah'sar*.
 Machias, *ma-chi'as*.
 Mackenzie, *mak-kē'nē*.
 Mackinaw, *māk'i-naw*.
 Macon (U. S.), *may-kon*.
 Madagascar, *mād-a-gōs'kar*.
 Madawaska, *mād-a-wās'ka*.
 Madeira, *ma-dee'ra*. (Madeira signifies, in Portuguese, "timber." These islands were so named on account of their magnificent forests. The Madeira River flows through a densely wooded region.)
 Madras, *mā-drās'*. (University town.)
 Madre de Dios, *mah'saray-day-dē-ōs'*.
 Madrid, *mād-rīd'*.
 Maelstrom, *mahl'strēm*. (A mill-stream.)
 Maese, *mahs*.
 Maestricht, *mahs'trikt*. (Cor- rection of *Lat. Mosæ Tra- jectus*, ford of the Meuse.)
 Magadoxa, *mah-gah-dō'shah*.
 Magdalena, *māg-da-lē-na* or *mahg-dah-lay-nah*.
 Maggiore, *māh-jō'ray*. (Lago Maggiore, "large lake.")
 Magyar, *māh-jōr*.
 Maimatchin, *mī-mah-cheen'*. (The trading-place.)
 Majorca, *ma-jōr'ka*. (Ma- jorca and Minorca were anciently named *Gym-nasia*. The epithet *majior*, the "greater," was given to one, while that of *minor*, the "less," was applied to the other.)
 Makololos, *māk-ō-lō-lōs*.
 Malacca, *ma-lāk'ka*.
 Malaga, *māl'a-ga* or *māh-lah-gah*.
 Malar or Maelar, *may-lar*.
 Malay, *ma-lay'*.
 Malaysia, *ma-lay'shī-a*.
 Maldive, *māl'dīv*. (Thousand isles.)
 Malta, *maw'l'ta*.
 Mamore, *mah-mō-ray'*.
 Manaar, *mā-nar'*.
 Managua, *mā-nah'gwah*.
 Manchuria, *mān-chōō'rī-a*.
 Mandalay, *māhn'dah-lay*.
 Manheim, *māhn'hīm*.
 Manilla, *ma-nī'lī*.
 Manioc, *māy-nī-ok*.
 Manitoba, *mān-i-tō-bah'*. (Ind. Spirit straits.)
 Manitoulin, *mān-i-tōō-līn'*. (Ind. Spirit islands.)
 Manitowoc, *mān-i-tō-wōk'*. (Ind. River of the spirits.)
 Mankato, *mān-kah'tō*.
 Mantua, *mān'tū-a*.
 Maracaybo, *māh-rāh-kī-bō*.
 Maramec, *mār'a-mēk*.
 Maranham, *mār-ā-nām'*.
 Marañon, *māh-rah-n'yōn'*.
 Marash, *māh-rash'*.
 Margarita, *mar-ga-ree'ta*. (A

pearl. Pearls were for- merly found in great quantities on the coasts of this island.)
 Margate, *mar'gat*.
 Marie Galante, *māh-rē-gā-lōnt'*.
 Marmora, *mār'mo-ra*. (Mar- ble. One of the islands of this sea has long been celebrated for its marble quarries.)
 Marocco, *māh-rōk'kō*. (Far- thest west.)
 Maroni, *māh-rō-nē'*.
 Maros, *mār-bāh'*.
 Marquesas, *mar-kay'sahs*.
 Marquette, *mar-kēt'*.
 Marseilles, *mār-sēz'*.
 Martaban, *mār-tā-bahn'*.
 Maryland, *mār'tī-land* or *may'rī-land*. (Named after the queen of Charles I.)
 Massachusetts, *mās-sāchōō-sēts*. (Ind. Blue hills.)
 Massuah, *māh'sōō-ah*.
 Masulipatam, *māh-sōō-le-pa-tahm'*.
 Matagorda, *māt-a-gōr'da*.
 Matamoras, *māt-a-mō'ras*.
 Matanzas, *ma-tān-zas* or *māh-tān'thahs*.
 Matapan, *māt-a-pān'*.
 Mate, *mā'toy*.
 Matsumai, *māts-mī'*.
 Mattaponi, *māt-tā-pō-nī*.
 Mattawamkeag, *māt-ta-wām'kēg*.
 Mauch Chunk, *mawh-chūnk'*.
 Maui, *mow'ee*.
 Maumee, *maw-mē'*.
 Mauna Kea, *mow-nah-kay'ah*.
 Mauritius, *maw-rīsh'ī-ū*. (Named after Maurice, prince of Orange.)
 Mayen, *mī-nē'*.
 Mazatlan, *māh-sāt-lahn'*.
 Mecca, *mēk'ka*.
 Mecklin, *mēk'līn*.
 Mecklenburg, *mēk'lēn-burg*.
 Medina, *may-dē-nah*. (The city.)
 Mediterranean, *mēd-i-tē-ray'nē-an*. (Midland.)
 Meinam, *may-ē-nām'* or *may-nām'*. (Mother of waters.)
 Meiningen, *mī-nīng-ge'*.
 Melanesia, *mēl-a-nē'shī-a*. (Islands of the blacks.)
 Melbourne, *mēl'būrn*.
 Melville, *mēl'vīl*.
 Memphis, *mēm'fis*. (The temple of the Good God.)
 Memphremagog, *mēm-frē-may'gōg*. (Ind. Lake of abundance.)
 Menai, *mēn'ī* or *mēn'ay*.
 Menan, *mē-nān'*. (Ind. Island.)
 Mende, *mōnd*.
 Mendocino, *mēn-dō-sē-nō*.
 Mendoza, *mēn-dō'za* or *mēn-dō'thah*.
 Menomonee, *mē-nōm'ō-nē*.
 Mequinez, *mēk'i-nēs*.
 Merida, *mēr'ī-da*.
 Meriden, *mēr'ī-dēn*.
 Mermementau, *mēr-mēn-tū*.
 Merrimack, *mēr'rī-māk*. (Swift water.)
 Mersey, *mēr'sē*.
 Merthyr Tydfil, *mēr-ther-tīd'vīl*.
 Mesopotamia, *mēs-ō-pō'tay-mī-a*. (The country be- tween the rivers, —Tigris and Euphrates.)
 Messina, *mēs-sē-nah*.
 Mesurado, *may-sōō-rah'dō*.
 Meuse, *mūz*.
 Mexico, *mēk'sī-kō*. (Place of *Meritli*, the Aztec god of war.)
 Miami, *mī-ahm'ī*.
 Michigan, *mīsh'ī-gan*. (Ind. A weir for fish.)
 Milan, *mī-lan* or *mī-lān'*. (Harvest-full.)
 Milledgeville, *mīl'dj-ē-vīl*.
 Miltzin, *mīl'tēn'*.

Milwaukee, *mīl waw'kē*. (Ind. Rich land.)
 Minatitan, *mē-nah-tū-lahn'*.
 Mindanao, *mēn-dah-nah'ō*.
 Minho, *mēn'yō*.
 Minneapolis, *mīn-nē-āp'ō-lis*.
 Minnesota, *mīn-nē-sō'ta*. (Cloudy water.)
 Mini Wakan, *mīn'e-wah-kahn'*.
 Minorca, *mī-nōr'ka*. (Lat. minor, "less.")
 Miquelon, *mē-kū-lōn'*.
 Miramichi, *mīr-a'mī-shē*.
 Mirim, *mē-rēm'*.
 Missisquoi, *mīs-sis-kuōi*.
 Mississippi, *mīs-sis-sip'pī*. (Ind. *May-see-see-be*, Father of running waters.)
 Missolonghi, *mīs-sō-lōng'-gē*.
 Missouri, *mīs-sōr'ē*. (Smoky water, or Mud river.)
 Mistissinny, *mīs-sis-sin'ni*. (Ind. Big rock.)
 Mito, *mē'tō*.
 Mitylene, *mī-tē-lē-nē*.
 Mobile, *mō-bēl'*.
 Mocha, *mō'ka*.
 Modena, *mō-dē-ay-nah*.
 Moero, *mō-ē'rō*.
 Mogadore, *mō-g-a-dōr'*.
 Mohrmedan, *mō-hām'-mī-lan*.
 Mohave, *mō-hah'vī*.
 Mohawk, *mō'hawk*. (Ind. Men-eaters.)
 Mohilev, *mō-hē-lēv*.
 Moldavia, *mōl-day-vī-a*.
 Molokai, *mō-lō-kī'*.
 Molucca, *mō-lūk'ka*.
 Monbas, *mōm'bahs*.
 Monaco, *mōn'ah-kō*.
 Monardnock, *mō-nād'nok*. (Ind. The spirits' place.)
 Mondeo, *mōn-day-gō*.
 Monongahela, *mō-n'm-gā-kē-lā*. (Ind. Falling-in bank river.)
 Monrovia, *mōn-rō-vī-a*.
 Montana, *mōn-tah'na*.
 Montauban, *mōn-tō-bān'*.
 Montauk, *mōn-tauk'*. (Ind. A manito tree.)
 Mont Blanc, *mōn-blōn'*. (White mountain.)
 Monte Christo, *mōn-tay-kristō*.
 Montenegro, *mōn-tay-nay-gō*. (Black mountain.)
 Monterey, *mōn-tē-ray'*.
 Monteverde, *mōn-tay-vēr-day*.
 Montevideo, *mōn-tay-vē-day-ō*. (Mount prospect. It is situated on a slight elevation.)
 Montgomery, *mōnt-gūm'ēr-i*.
 Montmorenci, *mōnt-mō-rēn'-i*.
 Montpelier, *mōnt-pē'lī-er*. (Fr. Mountain of the young girls.)
 Montreal, *mōnt-re-awī'*. (Royal mount.)
 Montserrat, *mōnt-ser-rāt'*. (Jagged mountains.)
 Moquegua, *mō-kay-gwah*.
 Morant, *mō-rānt'*.
 Morava, *mō-rah'vāh*.
 Moravia, *mō-ray-vī-a*.
 Moray, *mō-ray*.
 Morea, *mō-rē-a*. (From the word *mo-re*, a "mulberry tree." So called from its resemblance in shape to a mulberry-leaf, or on account of the quantity of mulberry trees produced here.)
 Moreau, *mō-rō*.
 Morelia, *mō-ray'ī-a*.
 Morella, *mō-rē'yāh*.
 Moriato, *mō-rī-ah'īō*.
 Morioka, *mō-rē-ō'bah*.
 Morlaix, *mōr-lay'*.
 Moscow, *mōs'kō*.
 Moselle, *mō-sēll'*.
 Moskva, *mōs'k-vah'*.
 M'amedes, *mō-sah-may'-ōs*.

Moulins, *mōō-lūn'*.
 Mount Desert, *dē-sert'* or *desert*.
 Murzuk, *mōūr-sōk'*.
 Mozambique, *mō-zām-beek'*.
 Mulur, *mōōr*.
 Mulahachen, *mōō-lah-ah-thēn'*.
 Mülhausen, *muel-how'zen*. (Mill [houses] village.)
 Munich, *mū'nīk*. (Monks.)
 Munkacz, *mōōn-kahčh'*.
 Münster, *muen'ster*. (The monastery.)
 Murcia, *mūr'shī-a*.
 Muscat, *mūs-kāt'*.
 Muscatine, *mūs-ka-teen'*.
 Muskogea, *mūs-kē'gon*. (Ind. The place of cranberries.)
 Muskingum, *mūs-kīng'gūm*. (Moose-eye river.)
 Muta Nziqe, *mū'tah-n'zī-gē'*.

N.

Nacogdoches, *nāk-ō-dū'chēz*.
 Nagasaki, *nah-gah-suh'ke*.
 Nagoya, *nah-gōi'ah*.
 Namaqua, *nah-muh'kwah*.
 Namur, *nay-mūr*.
 Nankin, *nahn-kin'*. (Southern capital.)
 Nan Ling, *nahn-līng*. (Southern mountain-chain.)
 Nantes, *nānts*. (A brook.)
 Naples, *nay'p'iz*. (New city.)
 Napoli (Greece), *nah'pō'h*.
 Narbonne, *nar-bōn'*.
 Narow, *nah-rōv*.
 Narragansett, *nār-ra-gūn'sēt*.
 Narraguagus, *nār-ra-guay'-gūz*.
 Nashua, *nāsh'ū-a*. (Ind. Between [the rivers].)
 Nassau, *nās'saw*.
 Nata, *nah'tah*.
 Natal, *nah-tahl'*. (So named by Vasco de Gama, because he discovered this coast on Christmas day [the day of the Nativity].)
 Natchitoches, *nāch-i-tōch'ez*; often pronounced *nāk-ō-tūsh'*.
 Navarino, *nah-vah-rē'vō*.
 Naxia, *nah'sī-a*.
 Naze, *nah'ze*. (Nose, cape.)
 Nebraska, *nē-brās'ka*. (Flat water.)
 Neches, *nēch'ez*.
 Neckar, *nēk'ar*.
 Neembucu, *n'yay-līm-bōō-kōō*.
 Negril, *nē-grīl'*.
 Negropont, *nay-grō-pōnt*.
 Neilgherry, *nēl'gēr-ī*.
 Neisse, *nī'sē*.
 Nejed, *nēl'jēd*.
 Neosho, *nē-ō'shō*.
 Nepal, *nē-paw'*.
 Nerbudda, *nēr-būd'da*.
 Nertschinsk, *ner-chīnsk'*.
 Netherlands, *nēr'ē-landz*. (The lower lands.)
 Neufchatel, *nū-shah-tēl'*. (New castle.)
 Neuse, *nū'sē*.
 Neva, *nē'va* or *nay'vāh*.
 Nevada, *nay-vah'da*. (White with snow.)
 Nevers, *nē-vayr'*.
 Newfoundland, *nū'fond-land*.
 New Hampshire, *hāmp'shir*. (Named after a county in England.)
 New Jersey, *jēr'zī*. (Named after the Island of Jersey.)
 New Orleans, *ōr-lē-ans*.
 New Tacoma, *ta-kō'ma*.
 New Zealand, *zē'land*.
 Ngami, *ngah'mee*.
 Niagara, *ni-ag-a-ra*. (Thunder of waters.)
 Nicaragua, *nē-kah-rah'gwah*.
 Nice, *nees*.
 Nicobar, *nīk-ō-bar'*. (Nine islands.)
 Nicolaivsky, *nīk-ō-lī'vskī*.
 Nicoya, *nē-kō'yāh*.
 Niemen, *nē'men*.
 Niger, *nī'jer*, or *Quor'ra*, or

Jol'iba. (The great dark river.)
 Niigata, *ni-e-gah'tah*.
 Nijni Novgorod, *nīzh'ē-nōv-gō-rōd'*. (The lower new city.)
 Nikko, *nek'kō*.
 Nile. (So named from Nilus, king of Thebes.)
 Ningpo'.
 Niobrara, *nī-ō-brāh'ra*.
 Niort, *nē-ōr'*.
 Nisibebatona, *nīsh-ne-bāt'-ō-na*.
 Nismes, *nēm*.
 Noirmoutier, *nōir-mōō-te-ay'*. (The black monastery.)
 Norfolk, *nōr'fok*.
 Norway, *nōr'way*. (North way or country.)
 Norwich (U.S.), *nōr'wīch* or *nōr'wīch*.
 Norwich (Eng.), *nōr'wī*. (North town.)
 Nourse, *nōōr*.
 Nova Scotia, *nō'va-skō'shī-a*. (New Scotland.)
 Nova Zembla, *nō'va-zēm'bla*. (New land.)
 Nubia, *nū'bī-a*.
 Nueces, *nūyēs*.
 Nuevitas, *nūyē-ē'tahs*.
 Nunnivag, *nōōn-nī-vūh'k*.
 Nuremberg, *nū'rēm-berg*.
 Nvangwe, *nī-ahn'gwē*.
 Nvanza, *nī-ān'zā*. (Lake.)
 Nyassa, *nē-ah'sah*. (Thesca.)

O.

Oahu, *ō-ah'hōō* or *wah'hōō*.
 Oaxaca, *wah-hah'kuh*.
 Obe, *ō'bē*.
 Obidos, *ō-bē-dōs*.
 Ocean, *ō'shūn*. (Derived from *Oceanus*, god of the sea, son of Caelus and Terra. He is generally represented as an old man with a long flowing beard, sitting on the waves of the sea with a pike in his hand.)
 Oceanica, *ō-shē-ān'ē-ku*.
 Ochotsk, *ō-kōtsk'*.
 Ocmulgee, *ōk-mūl'gee*. (Ind. The rivers.)
 Oconee, *ō-kō'nee*. (Ind. Small river.)
 Odense, *ō'den-sē*.
 Odessa, *ō-dēs'ah*.
 Oeiras, *ō-ay'e-rahs*.
 Oeland, *ō-lahnd*.
 Ogasima, *ō-gah-sē-mah*.
 Ogechee, *ō-gē'chē*.
 Ohio, *ō-hī'ō*. (The beautiful river.)
 Oka, *ō'kah*.
 Okechobee, *ō-kē-chō'bē*.
 Okefnokee, *ō-kē-fn-ō'kē*.
 Oki, *ō'kee*.
 Okinagon, *ō-kin'a-gūn*.
 Olean, *ō-lē-ān'*.
 Oleneik, *ō-lay-nēk'*.
 Olmutz, *ō'lūts*.
 Olot, *ō-lōt'*.
 Olviopol, *ō-lē-ō'pōl*.
 Olympia, *ō-līm'pī-a*.
 Olympus, *ō-līm'pūs*.
 Omaha, *ō'mā-haw*.
 Omoa, *ō-mō'ah*.
 Omsk, (Town on the Om.)
 Oneja, *ō-nē'ga*.
 Oneida, *ō-nī'da*. (Ind. People of the beacon-stone.)
 Oneonta, *ō-nē-ōn'ta*.
 Onondaga, *ōn-on-daw'ga*.
 Ontario, *ōn-tay'rī-ō*. (Ind. A village on a mountain.)
 Ontonagon, *ōn-tō-nō'gōn*.
 Oporto, *ō-pōr'tō*. (The harbor.)
 Oran, *ō-rān'*.
 Orchilla, *ōr-chēl'yah*.
 Oregon, *ōr'ē-gon*. (River of the West.)
 Orense, *ō-rēn'say*.
 Orinoco, *ō-rī-nō'kō*. (The coiled serpent.)
 Oristano, *ō-rī-tah'nō*.
 Orizaba, *ō-rē-thah'vāh*.

Orkneys, *ōrk'neez*. (Isles of whales.)
 Ortegai, *ōr-tay-gah'ī*.
 Osage, *ō-say'ī*. (Ind. The strong.)
 Osceola, *ōs-sē-ō'la*.
 Osh'kosh.
 Osmanlis, *ōs-mān'līs*. (A term derived from *Osman*, the name of the founder of the Ottoman Empire, and now applied to the Turks.)
 Ossuna, *ōs-sōō'nah*.
 Oswegatchie, *ōs-we-gāch'ī*.
 Oswego, *ōs-wē-gō*.
 Otranto, *ō-trān'tō* or *ō-trān'tō*.
 Otsego, *ōt-sē-gō*.
 Ottawa, *ō'tā-wa* or *ō'tā-way*. (Ind. Traders.)
 Ottoman, *ō'tū-mān*. (From *Othman*, or *Osman*, who founded the empire of Turkey.)
 Ottumwa, *ōt-tūm'wa*.
 Ourique, *ōō-rē-kay'*.
 Ouro Preto, *ōō-rō-pray'tō*.
 Ouse, *ōōz*. (Water.)
 Oviado, *ō-vē-ay'rōō*.
 Owasco, *ō-wōs'kō*. (Ind. A bridge.)
 Ovakok, *ōi-a-pōk'*.
 Ozaka, *ō-zah'kah*.
 Ozark, *ō-zark'*.

P.

Pacific. (Tranquil.)
 Paducah, *pa-tū'kah*.
 Paisley, *pay'sī*. (Moist pasture-ground.)
 Palawan, *pah-lah-wahn'*.
 Palembang, *pah-lām-bahng'*.
 Palermo, *pa-lēr'mō* or *pah-lēr'mō*. (Convenient harbor.)
 Palestine, *pāl'es-tīn*. (Land of wanderers.)
 Palk, *pauk*.
 Palmas, *pahl'mahs*.
 Palmyra, *pāl-mī'ra*.
 Palos, *pah'lōs*.
 Pamlico, *pām'h-kō*.
 Pampas, *pahn'pahs*. (Treeless plains.)
 Pampeluna, *pahn-pay-tōō-nah*. (Corruption of *Pompeopolis*, "the city of Pompey.")
 Pamunky, *pa-mūng'kī*.
 Panama, *pān-a-mah'*.
 Pantellaria, *pahn-tēl-lah-rē'ah*.
 Papua, *pāp'ō-a* or *pah'pō-ah*. (The inhabitants received the name of *papuas* from the Malays, in whose language it signifies "frizzled hair.")
 Para, *pah-rah'*. (Father of waters.)
 Paraguay, *pah-rah-gwī'*.
 Parahyba, *pah-rah-ē'bah*.
 Paraira, *pah-rah-ē'bah*.
 Paramaribo, *pā-rā-mār'ī-bō*.
 Paramatta, *pā-rā-māt'ta*.
 Parana, *pah-rah-nah'*. (The sea.)
 Paranagua, *pah-rah-nah'-gwah*.
 Parime, *pah-rē'may*.
 Parina, *pah-rē-nah'*.
 Paris, *pār'is*.
 Parnahyba, *pah-nah-ē'bah*.
 Parmaiba, *pā-rā-nah-ē'bah*.
 Pascagoula, *pās-ka-gōō'la*. (Nation of bread.)
 Passaic, *pās-say'īk*. (Valley.)
 Passamaquoddy, *pās-sa-ma-kuōd'ī*. (Ind. Great place for pollock.)
 Passaro, *pās-sah'rō*.
 Passau, *pās'sow*.
 Patagonia, *pāt-a-gō'nt-a*. (*Patagon* means, in Spanish, "a man with large feet." Magellan gave the inhabitants of this country the name of *Patagonians* on account of the apparently large size of their

feet, which, being wrapped in skins, seemed much larger than they really were.)
 Patapoco, *pa-tāpō'kō*.
 Patras, *pah-trah's*.
 Patuxent, *pa-tāx'ent*.
 Pau, *pō*.
 Pawtucket, *paw-tūkt'et*. (Ind. At the falls.)
 Payta, *pā'tah*.
 Pecos, *pay'kōs*.
 Pedee, *pē-dēē'*.
 Peipus, *pay'ē-pōōs*.
 Pekin, *pē-kin'*. (Northern capital.)
 Pelew, *pē-lōō'*.
 Peling, *pē-līng'*. (Northern mountain chain.)
 Pembina, *pēm'bē-na*.
 Penigewasset, *pēm-y'gē-wōs-sēt*. (Ind. Crooked place of pines.)
 Penang'.
 Penias, *pēm'yahs*. (Rocky.)
 Pend Oreilles, *pōnd-ō-rayl'*. (Earrings.)
 Penjinsk'.
 Pennsylvania, *pēm-sil-ray'-nī-a*. (Penn's woodland.)
 Penobscot, *pē-nō'scōt*. (Ind. At the rock.)
 Pensacola, *pēm-sā-kō'la*.
 Penzance, *pēm-zāns*.
 Peoria, *pē-ō'rī-a*.
 Perdido, *pēr-dī'dō*.
 Père Marquette, *payr-mar-kēt'*.
 Périquex, *pay-rē-gū'*.
 Pernambuco, *pēr-nahm-bōō-kō*.
 Perouse, *pay-rōōz'*.
 Peripignan, *pēr-pēm-yōn'*.
 Persia, *pēr'shī-a*.
 Peru, *pē-rōō'*.
 Perugia, *pay-rōō'jah*.
 Pescara, *pēs-kah'rah*.
 Petchora, *pēt-chō'rah*.
 Petropaulovsky, *pay-trō-pow-lōv'skē*. (Town of Peter and Paul.)
 Petrovitch, *pay-trō-vīch*.
 Philadelphia, *fī-lā-dēl'fī-a*. (City of brotherly love.)
 Philippine, *fī-lip'pīn*. (Named after Philip II. of Spain.)
 Philippopolis, *fī-lip-pōp'ō-līs*. (City of Philip.)
 Phoenix, *fē'nīks*.
 Piacenza, *pē-ah-chēn'zah*.
 Piacina, *pē-ah-sē-nah*.
 Pichincha, *pē-chēn'cha*.
 Picolata, *pīk-ō-lah'tah*.
 Pictou, *pīk-tōō'*.
 Piedmont, *pēd'mōnt*. (Foot of the mountain.)
 Pilcomayo, *pīl-kō-mī'ō*.
 Pinalena, *pē-nah-lay'nah*.
 Piqua, *pīk'wa*.
 Pisa, *pī'zah*.
 Piscataqua, *pīs-kāt'ā-kwa*. (Ind. Great deer river.)
 Piscataquis, *pīs-kāt'ā-kwīs*.
 Pisgah, *pīz'ga*.
 Pisuerga, *pē-swē'r'gah*.
 Plaquemine, *plāk-mēn'*.
 Plymouth, *pām'ūth*. (Town at the mouth of the Plym.)
 Point de Galle, *dē-gahl'*.
 Poitiers, *pōi-tī-ay'*. (City of the Pictones.)
 Po'land. (Flat land.)
 Policastro, *pō-lē-kah'strō*.
 Polynesia, *pōl-y-nē'shī-a*. (Many islands.)
 Pomerania, *pōm-ē-ray'nī-a*. (Upon the sea.)
 Pompeii, *pōm-pay'yē*.
 Ponce, *pōn'thay*.
 Pondicherry, *pōn-dē-shay-rē'* or *pōn-dē-shay-rē'*. (Near town.)
 Pontchartrain, *pōnt-char-trayn'*.
 Popayan, *pō-pī-ahn'* or *pō-pah-yahn'*.
 Popocatepetl, *pō-pō-kāt-ay-pay-īl*.
 Portalegre, *pōr-tah-lay'gray*.
 Port au Prince, *pōrt-ō-prāns*.
 Port Mahon, *pōrt-mah'hōn'*.

Porto Rico, *pōr'tō-rē'kō*. (Rich harbor.)
 Porto Vecchio, *pōr-tō-vēk-kē-ō*. (Old harbor.)
 Port Said, *pōrt-sah-sēd'*.
 Portugal, *pōr'tū-gal*. (The harbor of Cal.)
 Portuguese, *pōr'tū-gēez*.
 Posen, *pō'zen*.
 Potomac, *pō-tō'mak*. (Ind. Place of the burning pine.)
 Potosi, *pō-tō'sē'* or *pō-tō'sē*.
 Poughkeepsie, *pō-ky'ē*.
 Potomac, *pō-tō'mak*. (Shallow inlet, or safe harbor for small vessels.)
 Poultney, *pōlt'nē*.
 Powhatan, *pōw-ha-tān'*.
 Poyang, *pō-yahng'*.
 Pragma, *prah'gah*.
 Prague, *prayg*. (A three-hold.)
 Prairie, *pray'rē*.
 Prairie du Chien, *pray'ē-dū-shēen*. (Dog prairie.)
 Prepel, *pray'gēl*.
 Presidio del Norte, *pray-sē-dē-ō-dēl-nōr'tay*. (Guard-house or fort of the North—i. e. northern fort.)
 Presque Isle, *prēsk-ēl'*. (A peninsula.)
 Primero, *pēr-may'rō*. (First.)
 Pripet, *prīp'ēt*.
 Privas, *prī-vās*.
 Prussia, *prūsh'ī-a*. (Country of the *Boruss*, or *Next to Russia*.)
 Pruth, *prōōth* or *prōōt*. (River.)
 Pueblo, *pōōl'ō*. (Town or city.)
 Puerto Principe, *pōr'tō-prīnsē-pah*. (Prince's port, or chief gate.)
 Punjab, *pūn-jahb'*. (Five rivers.)
 Punta Arenas, *pōōn'tah-ah-ray'nahs*. (Point of sand.)
 Purissima, *pū-rī'sī-ma*.
 Purus, *pōō-rōō*.
 Putumayo, *pōō-tōō-mī-ō*.
 Pyrenees, *pī'rē-neez*.

Q.

Quebec, *kwe-bēk'*. (Ind. Take care of the rock.)
 Queretaro, *kay-ray'tah-rō*.
 Quesaltenango, *kay-sahl-tay-nahn'gō*.
 Quilao, *kē'lō-ah*.
 Quimper, *kām-par'*.
 Quincy, *kwin'zī*.
 Quinine, *kwin'nin* or *kwin'nin'*.
 Quinnebaug, *kwin-ne-bawg'*. (Ind. Long pond.)
 Quito, *kē-tō*.

R.

Rabatt, *rah-bah't*.
 Racine, *ra-sēn'*.
 Radack, *rah'dakt*.
 Ragusa, *rah-gōō'sah*.
 Rajah, *rah'jah*. (King, royal.)
 Rakkah, *rah'kah*.
 Raleigh, *raw'la*. (Named in honor of Sir Walter Raleigh.)
 Ralick, *rah'lik*.
 Rangeley, *rayng'lee*.
 Rangoon, *rahng-gōōn'*.
 Rapidan', (Rapid Ann. Said to have been named in honor of Queen Anne.)
 Rappahannock, *rāp-pā-hān'-nok*. (River of quick-rising waters.)
 Raritan, *rair'ī-tān*.
 Ravenna, *ra-vē'nā*.
 Reading, *rēd'īng*.
 Recife, *ray-sē'fuy*. (The reef.)
 Refinaes, *rēf'nēs*.
 Reggio, *rayj'jō*.
 Regina, *rē-gī'nā*.
 Reikiavik, *rēk'ā-vīk*. (Steam-town.)
 Rendsburg, *rēnds'bōōrg*.
 Rennes, *rēm*.
 Rennefa, *ray-kayn'yah*.
 Reus, *ray'ōōs*.

Revillagigedo, ray-vēl'yah-hē-hay' rāō.
 Reyes, ray'yē.
 Rheims, rēms.
 Rhine, rīn.
 Rhode Island, rōd-i'land.
 (So called from its supposed resemblance to the Island of Rhodes.)
 Rhodope, rōd'ō-pe.
 Rhone, rōn.
 Riad, rē'ad.
 Ribe, rē'be.
 Richelieu, rē-she-lōō'.
 Rideau, rē-dō'.
 Riesen Gebirge, rē'sen-ge-bēr'ge. (Giant mountains.)
 Riza, rī'ga or rē'ga.
 Riobamba, rē-ō-bahm'hah.
 Rio del Norte, rē-ō-dēl-nōr'-tay. (River of the north.)
 Rio Grande, rī-ō-grānd or grān'day. (Great river.)
 Rioja, rē-ō'hah.
 Rio Janeiro, rī-ō-ja-nē'rō.
 (The city is situated on an arm of the sea; called *Rio de Janeiro*, "the River of January," because discovered January 1.)
 Rio Negro, rē-ō-nay'grō.
 (Black river.)
 Roanoke, rō-nōk'. (Ind. Sea-shell or wampum.)
 Rochelle, rō-shēl'.
 Romagna, rō-mahn-yah'.
 Romania, rō-mah'nī-a.
 Rosario, rō-sah'rē-ō.
 Rosetta, rō-zē'tī-a.
 Rotterdam. (On the dam or dike of the Rotter.)
 Rouen, rōō-dn'.
 Roumania, rōō-may'nī-a.
 (Country of the Romans.)
 Roumelia, rōō-mēlī-a.
 (Turkish corruption of *Romania*.)
 Rovuma, rō-ōō-mah.
 Roxo, rō'hō.
 Rügen, rū'gen.
 Ruska Poyana, rōō-kō-pō-yah'nō.
 Russia, rīsh'i-a or rōō-shī-a.

S.

Sabine, sa-been'.
 Sable, say'bī. (Sand.)
 Saco, saw'kō.
 Sacramento, sāk-ra-mēn'tō.
 Sadao, sah-dōn'.
 Sado, sah'dō.
 Saga, sah'gah.
 Saghalin, sah-gah-leen'.
 Saginaw.
 Sagua la Grande, sah'gwah-lah-grahn'day.
 Saguenay, sā-g-e-nuy'.
 Sahara, sah-hah'rah. (Desert.)
 Said, sah-ēd'.
 Saigon, sā-gōn'.
 Saima, sā'mah.
 Salado, sah-lah'dō.
 Salem, sā'lem. (Peace.)
 Salina (U. S.), sā-lē'na.
 Salinas, sā-lē'nās. (Salt works.)
 Sallee, sah'lēy.
 Salonica, sah-lō-nē'kah.
 Saltillo, sah-lī'lō'.
 Saluda, sah-lōō'dah.
 Salwen, sah'lōōn.
 Salzburg, sah-ls-būrg.
 Samara, sah-mah-rah'.
 Samarang, sah-mah-rahng'.
 Samarand, sah-m-er-kānd'.
 Samisat, sah-mē-sah'.
 Samos, say'mōs. (From Arab. *sama*, "to project, to be prominent.")
 Samovedes, sā-m-ōy-dēs'.
 San Antonio, sah-n-ahn-tō-nī-ō. (St. Anthony.)
 San Diego, sah-n-dē-yō-go.
 Sandomierz, sah-n-dō-mē-āirzh.
 San Domingo, sah-n-dō-mīng'gō. (Holy Sabbath.)
 Sandusky, sā-dū'skī. (Cold spring.)
 San Felipe, sah-n-fay-lē'pē.
 San Francis'co. (St. Francis.)
 Sangamon, sang'ga-mōn.

Sangar, sah-n-gar'.
 San Joaquin, sah-n-hō-ah-keen' or sah-n-waw-keen'.
 San Jose, sah-n-hō-say'. (St. Joseph.)
 San Juan, sah-n-hō-ahn' or huanhn. (St. John.)
 San Juan Bautista, sah-n-hō-ahn-bow-tēs-tah.
 San Lucas, sah-n-lōō'kahs. (St. Luke.)
 San Luis de Potosi, sah-n-lōō-ēs-dūy-pō-tō-sē.
 San Marino, sah-n-mah-rē'nō.
 San Miguel, sah-n-mē-gēl'. (St. Michael.)
 San Saba, sah-n-sah'bah.
 San Salvador, sah-n-sahl-vah-dōr'. (Holy Savior.)
 San Sebastian, sah-n-say-bah-tē-ahn'.
 Santa Barbara, sah-n-ta-bar-ba-ra. (St. Barbara.)
 Santa Cruz, sah-n'tah-kroōs. (Holy cross.)
 Santa Fe, sān-ta-fē or sah-n-tah-fay'. (Holy faith.)
 Santa Maura, sah-n'tah-mow-rīh.
 Santander, sah-n-tahn-dayr'.
 Santarem, sah-n-tah-rēm'.
 Santee'.
 Santiago, sah-n-tē-ah'gō. (St. Iago—i. e., St. James.)
 Santiago de Cuba, sah-n-tē-ah'gō-dah-kōō-bah.
 Santorini, sah-n-tō-rē-nee.
 São Felipe de Benguela, soww-fay-lē'pēy-day-bēn-gwē-lah.
 São João, soww-zhō-oww'.
 Saone, sōn. (The placid river.)
 São Paulo, soww-pow'lo.
 Sapporo, sah-pō-rō.
 Saranac, sā-r-a-nāk'. (Ind. River that flows under rock.)
 Saratoga, sā-r-a-tō'ga. (Ind. Place of miraculous waters in a rock.)
 Saratov, sā-r-a-tōf'.
 Sarawack, sah-rah-wahk' or sah-rah-wahk'.
 Sardinia, sar-dīn'i-a.
 Saskatchewan, sā-kāch'p-ōn. (Ind. Swift current.)
 Sassari, sah'sah-rē.
 Satsuma, sah-tōō-mah.
 Saugerties, saw'ger-tēz.
 Saint de Saint Marie, sōō'dē-sānt-māy'ri. (Falls of St. Mary.)
 Savannah, sā-vān'na.
 Save, sāvo or sayv.
 Scandinavia, skān-dī-nay'-vī-a.
 Scheldt, shēlt.
 Schemnitz, shēm'nīts.
 Schenectady, shē-nēk'tā-dī. (Ind. River-valley beyond the pine trees.)
 Schiedam, shē-dahm'. (On the dam or dike of the Schie.)
 Schleswig, shlē'svīg. (From the river *Schle*, and *wig*, "a bay.")
 Schoodic, skōō'dīk. (Ind. Burnt lands.)
 Schuyler, shū'yler.
 Schuylkill, skōōl'kil. (Dutch. Hidden creek.)
 Schwerin, shwē-rēm'.
 Scilly, sil'ī.
 Seind, sēnd. (A collection of waters.)
 Scio, sē-ō.
 Scioto, sē-ō-tō.
 Scot'land. (Land of the Scots.)
 Scutari, skōō'tah-ree. (From Persian *uskudar*, "messenger." Scutari was formerly, and is now, a post-station for Asiatic couriers.)
 Searcy, ser'sī.
 Seattle, sē-dē'lē.
 Sebago, sē-bay'gō. (Ind. Region of river-lake.)
 Sebastopol or Sevastopol,

sē-vās-tō'pol or sē-vās-tō-pōl. (City of Augustus.)
 Secundo, say-kōōn'dō. (Second.)
 Segovia, say-gō-vē-ah.
 Segre, say'grāy.
 Segura, say-gōō'rah.
 Seine, sayn.
 Selvas, sē'lvas.
 Sena, say'nah.
 Sendai, sēn'dē.
 Seneca, sēn'e-ka. (Corruption of *sinnibar*, "vermillion.")
 Senegal, sēn-ē-gwēl'.
 Senegambia, sēn-ē-gām-bī-a. (Named from its situation between the Senegal and Gambia Rivers.)
 Sennaar, sēn-nar'.
 Senne, sēn'ne.
 Seres, sēr'sē.
 Sereth, say-rēl'.
 Serpige del Rey, sayr-zhē-pay-dēl-ray.
 Serra Tabatinga, sēr'rah-tah-bah-tīn'gah.
 Serro Frio, sēr'rō-frē-ō. (Cold mountains.)
 Servia, sēr-vī-a.
 Sesheke, say-shay'kah.
 Severo Vostochnoi, say-vay'rō-vās-tōk'noi. (North-east.)
 Sevier, sē-vēr'.
 Seville, sē-vīl' or sē-vīl'. (Corruption of the Latin name *Hispalis*.)
 Seychelle, say-shēl'.
 Shamoo, shah-mō'.
 Shanghai, shāng'hī.
 Shannon, shān'nōn. (Old river.)
 Shenandoah, shēn-ān-dō'a.
 Shikoku, shē-kō-kōō.
 Shilluks, shīl-lōōks'.
 Shiraz, shē'rahz.
 Shoya, shō'yah.
 Shreveport, shrēev'pōrt.
 Shumla, shōōm'lāh.
 Siam, si-dm' or sē-āhm'.
 Siberia, si-bēr'i-a.
 Sicily, sī-kī-lī. (Cnt off.)
 Sierra, sē-r'rah. (A "saw." Hence a mountain range, because at a distance it presents a notched appearance like the teeth of a saw.)
 Sierra Estrella, sē-r-rah-ē-trēl'yah.
 Sierra Guadarama, sē-r-rah-gwah-rām-rah-mah.
 Sierra Leone, sē-r'ra-lē-ō-nē or sē-r'rah-lay-ō-nay. (Lion mountains.)
 Sierra Madre, mah'r-may.
 Sierrita, sē-rī-tā.
 Sierra Nevada, nē-vah'da. (Snowy mountain-ridge.)
 Sierra Toledo, tō-lay'dō.
 Sihon, si-hōn' or si-hōōn'.
 Silan, sē-lahn'.
 Silesia, sē-lē-shī-a.
 Siliaria, si-lī-trī-a.
 Simferopol, sīm-fēr-ō'pōl.
 Sinai, sā'nay or sā'nay-ī.
 Sinaloa, sā-nah-lō-ah.
 Singapore, sāng-ga-pōr'. (City of lions.)
 Siout, sē-ōō'.
 Sioux, sē-ō.
 Sirinagar, sēr-in-a-gar'.
 Sirocco, sēr-rōk'kō.
 Sisal, sē-sahl'.
 Siwah, sē-wah'.
 Skag'er Rack. (An isthmus or promontory.)
 Skid'aw.
 Skowhegan, skow-hē-gan.
 Skye, skī.
 Skyros, skē'rōs.
 Sligo, slī-gō.
 Smyrna, smīr'na. (Myrrh.)
 Soconusco, sō-kō-nōōs'kō.
 Socorro, sō-kōr'rō.
 Socotra, sō-kō'trah or sōk'ō-trah.
 Sofia, sō-fah'lah or sō-fah-lah.
 Sokoto, sō-kō-tō'.
 Solano, sō-lah'nō.

Somali, sō-mawl'ee.
 Sombereete, sōm-bray-ray-tay.
 Sombbrero, sōm-bray'rō.
 Somme, sōmm.
 Sonora, sō-nō'ra.
 Sooloo, sōō-lōō'.
 Sophia, sō-fī'a.
 Sorata, sō-rah'tah.
 Sorel, sō-rēl'.
 Soria, sō-rī-ah.
 Soudan, sōō-dahn'. (The land of the blacks.)
 Spezia, spē-dē-ah.
 Spitzberg'en. (Mountain with peaks.)
 Spree, spray.
 Squillace, skwēl-lah'chay.
 Staffa.
 Stanovoi, stāh-nō-voi'.
 St. Augustine, sēnt-aw-gūs-teen'.
 Staunton (U. S.), stāhn'ton.
 St. Blas, sēnt-blāhs'.
 St. Croix, sēnt-kroy'. (Holy cross.)
 Steilacoom, stīl-a-kōōm or stē-lā-kōm.
 Steppes, spēps.
 St. Etienne, sēnt-ay-tē-ēnn'. (St. Stephen.)
 Stettin, stē-tēn'.
 Steubenville, stū-ben-vīl'.
 St. Genevieve, saynt-jēn-e-vīv'.
 St. Heliers, sēnt-hēl'yēr.
 St. Malo, sē-mā-lō'.
 Stockholm. (Island formed by stocks or piles.)
 Stolpemünde, stōl-pe-muen-de.
 St. Paul de Loan'da.
 St. Pierre, sē-pēr-ayr'.
 St. Quentin, sēn-kōn-tān'.
 Strabane, strā-bān'.
 Stralsund, strāl'sōnd.
 Strasburg, strās'būrg. (Castle or town upon the [old Roman] highway.)
 Strelitz, stray'līz.
 Stromboli, strōm-bō-lee.
 St. Roque, sēnt-rōk'.
 St. Ubes, sēnt-ūbs'.
 Suakin, suah'kīn.
 Sucre, sōō-kray'.
 Suez, sōō-ēz.
 Suir, shōōr.
 Sumatra, sōō-mah'trah.
 Sumbawa, sūm-baw-wa.
 Sumburg, sūm'bū-rō.
 Sun'apee.
 Sunda, sūn'da.
 Sungari, sōōn-gah-ree'.
 Sungaria, sōōng-gah'rē-ah.
 Superior, sōō-pēr'ri-or.
 Surat, sōō-rah'l'.
 Surinam, sōō-rī-nahm'.
 Susquehanna, sūs-kwē-hān'-na.
 Sutlege, sūt-lēj'.
 Suwanee, sū-wanē-nee.
 Swansea, swōn'sē.
 Swatow, swah'tow'.
 Sweden, swē'den. (Country of the Suevi.)
 Svdnev, sūd'nee.
 Svra, sēr'rah.
 Syracuse, sēr'a-kūs.
 Syria, sēr'i-a.
 Szamos, sh-mahsh'.
 Szegedin, sēg-dē-ēn'.

T.

Tabasco, tah-'nah'skō.
 Tabreez, tah-'rēz'.
 Tacazze, tah-kah'tay. (The terrible; from its numerous cataracts.)
 Taconic, tah-kōn'īk.
 Taflett, tāf-lēt'.
 Tagus, tay'gūs.
 Tahiti, tah-hē-tī.
 Tahlequah, tah-lē-kwah'.
 Talba, tā'bah.
 Tai-yuen, tā-yōō-ēn'.
 Talavera, tah-lah-vay'rah.
 Talcahuana, tahl-kah-wah'-nah.
 Talladega, tāl-lā-dē'ga.
 Tallahassee, tāl-lā-hās'ēe. (Ind. Old town.)

Tallapoosa, tāl-lā-pōō'sa. (Ind. Swift water.)
 Tamatave, tah-mah-tahv'.
 Tamaulipas, tah-mow-lē-pahs.
 Tampa, tahm'pa.
 Tampico, tahm-pē'kō.
 Tanganyika, tahn-gahn-yē-kah.
 Tangier, tahn-jēr'.
 Taos, tah'ōs.
 Tapajos, tah-pah'zhōs or tah-pah'hōs.
 Taranto, tah'rah-n-tō.
 Tarazona, tah-rah-thō'nah.
 Tarbes, tārb.
 Tarija, tah-rē'jah.
 Tarnopol, tar-nō'pōl.
 Tarragona, tar-rah-gō'nah.
 Tartary, tar'tā-rī.
 Tashkend, tahsh-kēnd'.
 Tasmania, tāz-may'nī-a. (Named after Tasman, its discoverer.)
 Taudeny, tāw'de-nee.
 Taunton (U. S.), tāhn'ton.
 Tau'rus. (Lat. From Arab. *tauw*, "a mountain.")
 Tchad, chād.
 Tcherkassi, chēr-kah'sēe.
 Tchernigov, chēr-nē-gōv'.
 Tchernowitz, chēr-nō-vīts.
 Tchintou, chīng-tō'.
 Tchouli, chōō'ee.
 Teatsin, tēnt-sēn'.
 Tegucigalpa, tay-gōō-sē-gah'l-pah.
 Teheran, tē-hrah'n'.
 Tehuantepec, tay-wahn-tay-pēk'.
 Teify, tē-vee.
 Tenesvar, tēn-tah-var'.
 Tenniferie, tēn-er-īf'.
 Tennessee, tēn-nē-sē'. (Ind. River of the Big Bend.)
 Tepeleni, tēp-pay-lay-nee.
 Tepic, tay-pēk'.
 Terceira, tēr-say-rē-rah.
 Terre Haute, tēr-reh-hōt. (High land.)
 Terra Nova, tēr-rah-nō-vah. (New land.)
 Tete, tay'tay.
 Teulada, tē-ōō-lah'mah.
 Texas, tēks'as. (Named from the *Tejan*, or "Friendly," Indians.)
 Texel, tēks'el.
 Thames, tēmz.
 Thebes, thēbz.
 Theiss, tēs.
 Thian Shan, tē-ahn'shahn. (Celestial mountains.)
 Thibet, thīb't or thīb't'.
 Thibodeaux, tēb-ō-dō'.
 Thorn, thōn.
 Thur, thōr.
 Thuringian, thū-rīn'jī-an.
 Tibboos, thīb-bōōs'.
 Tiber, tē-ber.
 Tibesty, tē-bē-tēe'.
 Tiburon, tē-vōō-rōn'.
 Ticino, tē-chē'nō.
 Ticonderoga, tī-kōn-dēr-ō'ga.
 Tierra del Fuego, tē-r'rah-dēl-fū-ē-gō. (Land of fire.)
 Tiete, tē-ay'tay.
 Tiflis, tēf-lēs'.
 Timbuctoo, tīm-būkt'ōō.
 Timor, tē-mōr'.
 Timorlaut, tē-mōr'lowt. (Seaward Timor.)
 Tioga, tī-ō'ga. (Ind. Swift current.)
 Tippecanoe, tīp-pē-ka-nōō'. (Ind. A kind of fish living in this branch of the Wabash.)
 Titicaca, tī-tē-kah'kah.
 Tobago, tō-bay'gō.
 Tobique, tō-bēk'.
 Tobolsk'. (Town on the Tobol.)
 Tocantins, tō-kahn-teens'.
 Tokay, tō-kay'.
 Tokio, tō-kē-ō.
 Tolosa, tō-lō'sa.
 Tombigbee, tōm-bīg-bee.
 Tomsk. (Town on the Tom.)
 Tonawanda, tōn-a-wōn'da.
 Tongking, tōng-keen'.
 Tongoy, tōn-gō'i.

Tooele, tōō-ēē.
 Topeka, tō-pē'ka.
 Tormes, tōr'mēs.
 Toronto, tō-rōn'tō. (Ind. On trees rising from the lake.)
 Torres, tōr'rēs.
 Torrid'. (From Lat. *torro*, "to roast.")
 Tortugas, tōr-tōō'gas. (Tortois.)
 Toulon, tōō-lōn'.
 Toulouse, tōō-lōōs'.
 Tours, tōōr.
 Towanda, tō-wahn'da.
 Towatsi, tō-wah'tēe.
 Trafalgar, trāf'al-gar'.
 Trans Caucasai, trāns-kaw-kay'shī-a. (Across the Caucasus Mountains.)
 Trans Vaal, trāns-vah'l'. (Beyond the vaal, or river.)
 Transylvania, trān-sīl-vay-nī-a. (Across the wood.)
 Trebizond, trēb'zōnd. (Said to have been built in the shape of a trapezium.)
 Tres Montes, trēs-mōn'tā. (Three mountains.)
 Trieste, trē-tāt' or trē-tay.
 Trinidad, trīn-tī-dād'. (Trinity.)
 Tripoli, trīp'ō-lī. (Three cities. Three large towns formerly occupied the site of the present Tripoli.)
 Tripolizza, trīp'ō-lī-rah.
 Trop'ics. (Derived from the Greek *trēpō*, "to turn," because the sun in his annual course—the ecliptic—turns when he reaches the signs of Cancer and Capricorn.)
 Troyes, trōyeh.
 Truxillo, trōō-heel'yō.
 Tsadda, t'sād'dah.
 Tsugaru, sōō-gah'rōō.
 Tsuruga, sōō-rōō'gah.
 Tuaricks, tōō-ah-rīks'.
 Tuat, tōō-ah'l'.
 Tubac, tōō-bāk'.
 Tucson, tōō-shūn' or tūk-shūn'.
 Tucuman, tōō-kōō-mah'n'.
 Tule, tōō-lah'ree.
 Tule, tōō'lē. (A bulrush.)
 Tundra, tūn'drō.
 Tunguragua, tōōng-giō-rah'-gwah.
 Tunis, tū'nīs or tōō'nīs.
 Turcoman, tōōr-kō'man.
 Turin, tūr'īn or tū-īn'.
 Turkestan, tōōr-kā-tāh'. (Country of the Turks.)
 Tucaloosa, tū-kā-lōō'sa. (Ind. Black warrior.)
 Tuscara, tū-sā-rō'ra.
 Tuxpan, tōōs-pahn'.
 Tyrol, tūr'ol or tē-rōl'.

U.

Uaupes, wōw'pēs.
 Ubeda, ū-bay'mah.
 Ucayle, ū-kā-ah'lay.
 Uist, ūist.
 Ujiji, ūō-jē-jee.
 Ulm, ūlm.
 Umbagog, ūm-bay'gōg. (Ind. Clear lake.)
 Umea, ūō-mē-u.
 Unipqua, ūnp'kwah.
 Ungava, ūng-gah'vā.
 Upernavik, ūp-ēr-na-vīk.
 Upsal, ūp'sal.
 Ural, ūō'rah'l. (Girdle, belt.)
 Urbana, ūr-bān-a.
 Ures, ūō'rēs.
 Uruguay, ū-rōō-gwōy' or ū-rōō'gwī'.
 Utah, ū'tah or ū'taw. (Named from the *Ute* Indians.)
 Utica, ū'tī-ka.
 Utrecht, ū'trēkt. (Beyond "the passage" of the Rhine.)
 Utrera, ūō-tray'rah.

V.

Valgatch, vā'gah'tch.
 Valdai, vah'dī.
 Valdivia, vah'l-dē-vē-ah. (Rich valley.)

Valence, <i>vā-lōn's</i> . Valenciennes, <i>vā-lōn-sē-ān'n</i> . Valentia, <i>vā-lēn'shī-a</i> . (Pow-erful.) Valetta, <i>vah-lē'tah</i> . Valladolid, <i>vahl-yah-rāō-lōr</i> . Valparaiso, <i>vahl-pah-rī-sō</i> . (Vale of paradise.) Valverde, <i>vahl-vay'r-day</i> . Vancouver, <i>vān-kōō-ver</i> . Vannes, <i>vān</i> . Vanua Levu, <i>vah-nōō-ah-lay'vōō</i> . Vandrenil, <i>vō-dru'l</i> . Vile, <i>vī'le</i> . V-nango, <i>vē-nāng'gō</i> . Vendee, <i>vōn-day</i> . Venetia, <i>vē-nē'shē-ah</i> . Venezuela, <i>vēn-e-swee'la</i> . (Little Venice.) Venice, <i>vēn'is</i> . (Formerly part of the province of <i>Vendia</i> .) Veracruz, <i>vay'rah-krōōth</i> . (True cross.) Vernio, <i>ver-may'hō</i> . (Ver-milion.) Vermont, <i>ver-mōnt</i> . (Green mountains.) Versailles, <i>ver-say'ls</i> . Vesoul, <i>ve-sōōl</i> . Vesuvius, <i>vē-sū'vī-ū</i> . Veray, <i>ve-ray</i> .	Vienna, <i>vē-ēn'na</i> . (Abode of the Vends.) Vienna, <i>vē-ēn'n</i> . Vigo, <i>vē'gō</i> or <i>vī'gō</i> . Vilaine, <i>vē-lay'n</i> . Villa del Fuerte, <i>vēl-yah-dēl-fuērtay</i> . (Town of the fort.) Villa Real, <i>vēl'yah-ray-ahl</i> . (Royal town.) Villa Rica, <i>vēl-yah-rē'kah</i> . (Rich town.) Vincennes, <i>vīn-sēn's</i> . Vindhya, <i>vīnd'yah</i> . Virgenes, <i>vēr-hay'nēs</i> . Virginia, <i>ver-jīn'ya</i> . (Named in honor of Queen Elizabeth, the Virgin Queen.) Visa, <i>vē-zah</i> . Visen, <i>vē-say-ōō</i> . Vistula, <i>vīst'yōō-la</i> . Viterbo, <i>vē-ter'bō</i> . Vitoria, <i>vē-tō'rē-ah</i> . Volcano, <i>vōl-kay'nō</i> . (Name derived from <i>Vulcanus</i> , "Vulcan," the god of fire. According to the ancients, his forces were under Mount Etna, as well as under every other burn-ing mountain; hence the name.) Volga, <i>vōl'ga</i> or <i>vōl'ga</i> . Vosges, <i>vōzh</i> .	W. Waag, <i>vahg</i> . Wabash, <i>waw'bāsh</i> . (Ind. A cloud blown forward by an equinoctial wind.) Wabshaw, <i>wah'ba-shaw</i> . Wachusett, <i>waw-chū'sēt</i> . (Ind. The mountain.) Waco, <i>way'kō</i> . Waday, <i>vah'di</i> . Walsatch, <i>waw-sātch</i> . Wallachia, <i>wāl-lay'k-a</i> . (Country of the Wallachs.) Walla Walla, <i>wōl'lu-wōl'la</i> . Walloostowk, <i>wōl-lōō's-tōōk</i> . Walwich, <i>wahl'vish</i> . (Whale.) Warsaw, <i>waw'saw</i> . Wartha, <i>vay'tah</i> . Warwick (U. S.), <i>wōr'wik</i> or <i>wōr'rik</i> . Washington, <i>wā'shīng-ton</i> . Washita, <i>wāsh'ī-taw</i> . (Ind. Male deer.) Waterloo, <i>waw-ter-lōō</i> . Waukegan, <i>waw-kē'gan</i> . Waukesha, <i>waw-kē-shaw</i> . Weimar, <i>vī-mar</i> . Wener, <i>vay'ner</i> . Weser, <i>wē'zer</i> or <i>vay'zer</i> . (Western river.) Westphalia, <i>wēt-fay'li-a</i> . (Western country.)	Wetter, <i>wēt'ter</i> or <i>vēt'ter</i> . Wetumpka, <i>wē-tūmp'ka</i> . (Ind. Tumbling water.) Weymouth, <i>way'mūth</i> . (Town at the mouth of the Wey.) Wichita, <i>wich'ī-taw</i> . Widwin or Widdin, <i>wīd'in</i> or <i>vīd'in</i> . Wieliczka, <i>vē-lich'ka</i> or <i>vē-lich'kah</i> . Wiesbaden, <i>vēs-bah'den</i> . Wight, <i>wīt</i> . (Island of the Wights or Jutes.) Wilkes-Barre, <i>wilks-hār-ri</i> . (Named from John Wilkes and Col. Isaac Barre, de-fenders of colonial rights in the British Parliament.) Willamette, <i>wīl-lah'mēt</i> . Winnebagoishish, <i>wīn-nē-bi-gō'shish</i> . Win'nipeg. (Ind. Turbid water.) Winnipegosis, <i>wīn'nt-pe-gōōs</i> . Winnipiseogee, <i>wīn-nē-pē-saw'kē</i> . (Beautiful lake among the highlands.) Winona, <i>wē-nō'na</i> . (Ind. First-born daughter.) Winooski, <i>wē-nōō'ski</i> . (Ind. Beautiful stone river.) Wittenburg, <i>vīt'ten-bērg</i> . Woolwich, <i>wōōl'ij</i> .	Woonsocket, <i>wōōn-sōk'-et</i> . Worcester, <i>wōōs'ter</i> . Wrangell, <i>rahng'gēl</i> . Wurtenburg, <i>wur-tēm'bērg</i> . Wyandotte, <i>wī-ān-dōt</i> . Wyoming, <i>wī-ō'mīng</i> .	X. Xarayes, <i>shah-rī'sa</i> . Xenia, <i>zē-nī-a</i> . Xeres, <i>hay'rēs</i> . Xingu, <i>shēn-gōō</i> . Xucar, <i>hōō'kar</i> .	Y. Yablonoi, <i>yah-blō-nōi</i> . (Mountain of apples.) Yakutsk, <i>yah-kōōtsk</i> . Yang tse Kiang, <i>yāng-tē-kē-āng</i> . (Son of the ocean.) Yaqui, <i>yah-kē</i> . Yarkand, <i>yah-kand</i> . Yarmouth, <i>yar'mūth</i> . (Town at the mouth of the Yare.) Yazoo, <i>yah'zōō</i> or <i>yay'zōō</i> . Yenesel, <i>yēn-ē-say'ē</i> or <i>yēn-ē-say'</i> . (New river.) Yeniseisk, <i>yēn-ē-say'isk</i> . (Town on the Yenisei.) Yezo, <i>yay'zō</i> . Yokohama, <i>yō-kō-hah'mah</i> . (Cross shore.) Yonkers, <i>yōnk'ers</i> .	Yosemite, <i>yō-sēm'ī-ti</i> . Ypsilanti, <i>ip-sī-lān'ti</i> . Yucatan, <i>yōō-ka-tān</i> or <i>yōō-kah-tān</i> . (Ind. <i>Juca tan</i> , "What do you say?" the answer given to the Span-iards who asked for the name of the country.) Yukon, <i>yū'kōn</i> . Yuma, <i>yōō'mah</i> . Yuthia, <i>yōō'ti-hē-ah</i> .
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ETYMOLOGICAL VOCABULARY.

Ab, <i>ahb</i> , <i>aub</i> , <i>avō</i> . (Per. A river; Punjab, "five rivers.") Abad, <i>ah-bahd</i> . (Per. A city; Allahabad, "city of Allah.") Aber, <i>ab-er</i> . (Celt. Mouth of a river; Aberdeen, "mouth of the Dee.") Agua, <i>ah-gō-ah</i> (Port.). <i>agua</i> , <i>ah'gwah</i> (Sp.), <i>aigne</i> , <i>aignes</i> , <i>ayg</i> , <i>ayx</i> , <i>ayks</i> (Fr.). (Water. <i>Agua</i> Fr., "cold water;" <i>Agua</i> Dulce, "fresh water;" <i>Aguas</i> Mortes, "stagnant water;" <i>Aix-la-Chapelle</i> , "waters of the chapel.") Alta, <i>ahl-tah</i> . (Mon. Gold; <i>Altai</i> , "golden mountain.") Anti, <i>ant</i> . (Gr. Opposite; <i>Antarctic</i> , "opposite the Arctic.") Ar. (Per. Warlike, brave. Common suffix to names of Eastern tribes, <i>Bulgar</i> , <i>Tartar</i> , <i>Magyar</i> .) Ard. (Celt. Height, promontory; <i>Ardennes</i> , "heights.") Bab. (Arab. Gate or court; <i>Babylon</i> , "court of Belus;" <i>Bab-el-Mandeb</i> , "gate of tears.") Bil, <i>bahl</i> , plural <i>baden</i> . (Ger. Bath; <i>Carlshad</i> , "Charles's bath." The same word occurs in French as <i>bagu</i> or <i>bain</i> ; in Italian as <i>bagni</i> ; <i>Bagnoles</i> , <i>Banis-du-Mont-d'Or</i> , <i>Bagni di Lucca</i> .) Bahia (Sp.), <i>bay</i> (Eng.). (Bay or harbor. <i>Bahia Honda</i> , "deep bay;" <i>Bombay</i> , "good harbor.") Balt. (Celt. Belt or strait; <i>Baltic</i> , sea of "belts.") Bar. (Skr. Country; <i>Malabar</i> , "country of mountains.") Bas, <i>bah</i> (Fr.), <i>bat</i> , <i>baht</i> (Ger.). (Low; Pays-Bas, "low country"—i. e., The Netherlands; <i>Batavia</i> , "low plain.") Baton, <i>bah-ton</i> . (Fr. A staff or stick; <i>Baton Rouge</i> , "red stick.") Bean, <i>bō</i> , <i>belle</i> , <i>bēl</i> . (Fr. Beautiful; <i>Beaulieu</i> , "beautiful place;" <i>Belle Isle</i> , "beautiful island.") Beled, <i>be-lēd</i> . (Arab. Country; <i>Beled el Jered</i> , "country of the date.") Ben, <i>pen</i> , <i>ven</i> . (Celt. Mountain; <i>Ben Lommond</i> , "beacon mountain;" <i>Apennines</i> , <i>Cevennes</i> .) Blanc, <i>bōn</i> (Fr.), <i>blanco</i> , <i>blān'kō</i> (Sp.). (White; <i>Mont Blanc</i> , "white mountain;" <i>Cape Blanco</i> , "white cape.") Bon, <i>bōn</i> , <i>bonne</i> , <i>bōn</i> (Fr.), <i>buena</i> , <i>buey-na</i> , <i>buenos</i> , <i>buey-nōs</i> (Sp.). (Good; <i>Cape Bonhomme</i> , "Cape Good-man;" <i>Buenos Ayres</i> , "good air.") Brick (Ger.), <i>bruge</i> (Dutch). (A bridge; <i>Innsbruck</i> or <i>Innsbruck</i> , "bridge over the Inn;" <i>Bruges</i> , "bridges.") Bud, <i>bōōd</i> . (Ger. Dwelling; <i>Budweiss</i> , "white dwelling.") Buz. (A. S. and Ger. A castle or town. This word has many forms; as, <i>borg</i> , <i>bourg</i> , <i>borough</i> , <i>burrow</i> , <i>hury</i> , <i>berry</i> ; <i>Angsburg</i> , "city of Augustus;" <i>Edinburg</i> , "city of Edwin or Odin;" <i>Canterbury</i> , "city of Kent.") Bum. (A. S. Brook; <i>Tyburn</i> , "the Ty brook;" also <i>born</i> , <i>bourne</i> , <i>bone</i> , <i>brown</i> , <i>brunn</i> .) B. (A. S. Town; <i>Kirkby</i> , "church town.") Caster. (A. S. Camp, fortress, town. Also <i>caster</i> , <i>chester</i> . <i>Lancaster</i> , "fortress on the Lan;" <i>Gloucester</i> , "fair city.") Chow. (Chin. A town of the second class; <i>Chang-Chow</i> .) Civita, <i>chē-vē-tah</i> (It.), <i>Cin lad</i> , <i>the-nō-rāh-rā</i> (Sp.). (From Lat. <i>civitas</i> , a city; <i>Civita Vecchia</i> , "old town;" <i>Ciudad Real</i> , "royal city.") Cleve, <i>clif</i> . (A. S. Cliff; <i>Cleveland</i> , <i>Cli'f-on</i> .) Comb. (A. S. Valley; <i>Wycombe</i> , "valley of the Wy;" <i>Cumberland</i> , "land of hollows.") Costa, <i>kōō'tah</i> (Sp.), <i>cote</i> , <i>kōt</i> (Fr.). (Coast; <i>Costa Rica</i> ; "rich coast;" <i>Côte d'Or</i> , "gold coast.") Cron, <i>kron</i> . (Ger. crown; <i>Cronstadt</i> , "crown city.") Cruz, <i>krōōz</i> (Sp.), <i>croix</i> , <i>krōōh</i> (Fr.). (Cross; <i>Vera Cruz</i> , "true cross;" <i>Sainte Croix</i> , "holy cross.")	Dam, <i>dakm</i> . (Dutch. Dam or dike; <i>Schiedam</i> , "town on the dam of the Schie.") Den. (A. S. Den or valley; <i>Walden</i> , "woody den;" <i>Denbigh</i> , "dwelling in the vale.") Dhawalā, <i>dā-wōl'a</i> . (Skr. White; <i>Dhawalagiri</i> , "white mountain.") Dive. (Malay. Island; <i>Maldives</i> , "the thousand islands.") Dor, <i>dur</i> . (Br. River; <i>Dorchester</i> , "camp by the river;" <i>Durham</i> , "home by the river.") Dorf. (Ger. Village, town; <i>Düsseldorf</i> , "village on the Düsseldorf.") Dover. (A. S. A ferry; <i>Andover</i> , <i>Wendover</i> .) Dub. (Celt. Black; <i>Dublin</i> , "black pool.") Dun, <i>don</i> . (Celt. Hill or fort; <i>Dundee</i> , "fort on the Tay;" <i>Snowdon</i> , "snow hill.") Ea, <i>ey</i> . (A. S. Island; <i>Anglesea</i> , "isle of the Angles;" <i>Jersey</i> , "Caesar's island.") Eaux, <i>ō</i> . (Fr. Waters; <i>Bordeaux</i> , "border of the waters.") Erz, <i>ērs</i> . (Ger. Ore; <i>Erz Gebirge</i> , "ore mountains.") Field, <i>fī-ld</i> . (Dan. Mountain-range; <i>Dovrefield</i> , "range of Dovre.") Folk. (A. S. People; <i>Suffolk</i> , "south people.") Fond. (Fr. Bottom; <i>Fond du Lac</i> , "end of the lake"—i. e., the end farthest from the outlet.) Fontaine, <i>fōn-tān</i> . (Fr. Fountain; <i>Fontainebleau</i> = <i>Fontaine Belle Eau</i> , "fountain of beautiful water.") Foo. (Chin. A city of the first class; <i>Tai-yuen-foo</i> .) Ford (Eng.), <i>furd</i> (Ger.). (A ford; <i>Hereford</i> , "army ford;" <i>Frankfurt</i> , "ford of the Franks.") Gebirge, <i>ge-bē'ge</i> . (Ger. Mountains; <i>Erz Gebirge</i> .) Ghri, <i>gh-re</i> . (Skr. Mountain; <i>Dhawalagiri</i> .) Gorod, <i>gō-rōd</i> , <i>grad</i> , <i>grahd</i> . (Slav. Town; <i>Novgorod</i> , "new town;" <i>Belgrade</i> , "white city.") Guad, <i>gwahd</i> . (Sp. from Arab. <i>wad</i> , river; <i>Guadalquivir</i> , <i>Wād-al-kebeer</i> , "the great river.") Hai, <i>hi</i> . (Chin. Port; <i>Shang-hai</i> , "supreme port.") Ham. (A. S. Home; <i>Waltham</i> , "home in the wood.") Haven. (Eng. Haven, harbor; <i>New Haven</i> , <i>Fairhaven</i> .) Heilig, <i>he'ig</i> . (A. S. Holy; <i>Heligoland</i> , "holy land.") Hima. (Skr. Snowy; <i>Himalaya</i> , "abode of snow.") Ho. (Chin. River; <i>Hoang-Ho</i> , "yellow river.") Ili, <i>li</i> . (Turk. Country; <i>Rumli</i> or <i>Roumelia</i> , "country of the Romans.") Inver. (Irish. Mouth of a river; <i>Inverness</i> , "mouth of the Ness.") Kiang. (Chin. River; <i>Yang-tse-Kiang</i> , "son of the ocean river.") Kill. (Dutch. Creek; <i>Schuykill</i> , "hidden creek.") Kirche (Ger.), <i>kirk</i> (Scotch). (Church; <i>Fünfkirchen</i> , "five churches;" <i>Kirkby</i> , "church town.") Ling. (Chin. Mountains; <i>Nan-ling</i> , "southern mountains.") Lv. (A. S. Field; <i>Beverly</i> , "field of the heaver.") Mark. (Scand. Territory; <i>Denmark</i> , "territory of the Danes.") Mer. (Fr. Sea; <i>Merton</i> , "sea town;" <i>Mersey</i> , "sea island.") Minster (A. S.), <i>münster</i> (Ger.). (A monastery; <i>Westminster</i> , "west from St. Paul's;" <i>Axminster</i> , "monastery on the Axe.") Mühl. (Ger. Mill; <i>Mühlhausen</i> , or <i>Mulhausen</i> , "mill houses"—i. e., "mill village.")	Negro. (Sp. Black; <i>Montenegro</i> , "black mountain.") Nether. (A. S. Lower; <i>Netherlands</i> .) Nevada. (Sp. White with snow; <i>Sierra Nevada</i> , "snow-clad mountain-chain.") Nov. (New. In different languages this word assumes various forms, as <i>neu</i> , <i>nouveau</i> , <i>nova</i> , <i>ny</i> , etc.; <i>Novgorod</i> , <i>New Zealand</i> , <i>Nova Scotia</i> , <i>Nyboroug</i> .) Oe, <i>er'e</i> . (Dan. Island; <i>Faroer</i> , "sheep islands.") Paraiso. (Sp. Paradise; <i>Valparaiso</i> , "vale of paradise.") Pe. (Chin. North; <i>Peking</i> , "northern capital.") Phil. (Gr. Love; <i>Philadelphia</i> , "city of brotherly love.") Polis, <i>pol</i> , <i>poli</i> . (Gr. City; <i>Constantinople</i> , "city of Constantine;" <i>Tripoli</i> , "three cities;" <i>Sebastopol</i> , "city of Augustus.") Pont, <i>pōn</i> . (Fr. Bridge; <i>Negropont</i> , "black bridge.") Poor, <i>pore</i> . (Hind. City; <i>Cawnpore</i> , "city of a khan.") Punta. (Sp. Point; <i>Punta Arenas</i> , "point of sand.") Putra. (Skr. Son; <i>Brahmaputra</i> , "son of Brahma.") Real, <i>ray-ahl</i> . (Fr. Royal; <i>Montreal</i> , "mount royal.") Rico, <i>ree'kō</i> , <i>rica</i> , <i>ree'lah</i> . (Port. Rich; <i>Porto Rico</i> , "rich port;" <i>Costa Rica</i> , "rich coast.") Riesen, <i>ree'zen</i> . (Ger. Giant; <i>Riesen Gebirge</i> , "giant mountains.") Rio, <i>ree'ō</i> . (Sp. River; <i>Rio Grande</i> , "great river.") Ruhe. (Ger. Rest; <i>Carlsruhe</i> , "Charles's rest.") Salz. (Ger. Salt; <i>Salzburg</i> , "salt castle;" <i>Salzgrub</i> , "salt-mine.") Saut. (Fr. Waterfall; <i>Saut St. Marie</i> , "falls of St. Marie.") Sepe, <i>sippi</i> . (Ind. River, running water; <i>Mississippi</i> , "father of running waters.") Shire. (A. S. To shear or divide; a county; <i>Cheshire</i> , "county of Chester.") Sierra. (Sp. A saw; mountain-range; <i>Sierra Leone</i> .) Sk. (Russ. Town; <i>Tomsk</i> , "town on the Tom River.") Stan, <i>stahn</i> . (Per. Country; <i>Hindustan</i> , "country of the Hindus;" <i>Turkestan</i> , "country of the Turks.") Stol. (A. S. Place; <i>Bristol</i> , "bright or pleasant place.") Tierra. (Sp. Land; <i>Tierra del Fuego</i> , "land of fire.") Ton. (Eng. Town; <i>Norton</i> , "north town.") Tricht, <i>trecht</i> . (Danish, from Lat. <i>tractus</i> , a "passage;" <i>Maestricht</i> , "the passage of the Meuse;" <i>Utrecht</i> [Lat. <i>Ultra Trajectum</i>], "beyond the passage"—of the Rhine.) Tuck. (Ind. A river where the water is rough; <i>Naugatuck</i> .) Ural. (Russ. Girdle; belt; <i>Ural mountains</i> .) Vaal. (Dutch. River; <i>Transvaal</i> , "across the river.") Val. (Sp. Valley; <i>Valparaiso</i> , "vale of paradise.") Vecchio, <i>vecchia</i> . (Port. Old; <i>Porto Vecchio</i> , "old port;" <i>Civita Vecchia</i> , "old city.") Villa. (It. and Sp. Town; <i>Villa Nova</i> , "new town.") Wad or wady. (River. See <i>Guad</i> .) Weiss, <i>vis</i> . (Ger. White; <i>Weiskirch</i> , "white church;" <i>Budweiss</i> , "white dwelling.") Wich, <i>wick</i> . (A. S. Town; <i>Greenwich</i> , "green village;" <i>Warwick</i> , "garrison town.") Yang. (Chin. Male child; <i>Yang-tse-Kiang</i> , "son of the ocean.") Yar, <i>gar</i> . (Celt. Rapid or turbid; <i>Yare</i> , <i>Yarmouth</i> , <i>Garonne</i> .) Zuyder. (Ger. South; <i>Zuyder Zee</i> , "south sea.")
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DIMENSIONS OF THE EARTH

(69.1 miles to 1° at Equator).

	Miles.
Polar Diameter	7,899
Equatorial Diameter	7,925
Equatorial Circumference	24,899

Area of the Land-Surface.

	Sq. miles.
Eastern Continent	31,640,000
Western Continent	16,238,000
Oceanica (including Malaysia)	4,230,000
South Polar Lands	253,000
Total	52,361,000

Area of the Water-Surface.

	Sq. miles.
Pacific Ocean	75,000,000
Atlantic Ocean	35,000,000
Indian Ocean	23,000,000
Antarctic Ocean	7,000,000
Arctic Ocean	4,000,000
Inland Waters	739,000
Total	144,739,000

Proportion of land- to water-surface, about 1 to 3.

Length of Coast-Line.

(In round numbers, not including islands.)

	Coast-line in miles.	Area in sq. miles.	Area to one mile of coast in sq. miles.
Europe	20,000	3,900,000	195
North America	30,000	9,300,000	310
South America	17,000	6,900,000	400
Asia	35,500	16,000,000	450
Africa	16,200	11,500,000	710
Australia	8,760	2,900,000	340

AREAS OF THE PRINCIPAL ISLANDS.

America.

	Sq. miles.
Greenland	837,776
Cuba	45,884
Iceland	40,426
Newfoundland	49,732
Haiti	29,829
Vancouver	18,937
Marajo	5,160
Jamaica	4,193
Chiloe	3,980
Porto Rico	3,531

Europe.

	Sq. miles.
Great Britain	88,649
Ireland	32,531
Sicily	9,939
Sardinia	9,297
Corsica	3,378

Asia.

	Sq. miles.
Nippon or Hondo	87,500
Saghalin	47,500
Yezo	36,300
Ceylon	24,818
Hainan	13,951
Formosa	13,867
Kiushiu	11,288
Shikoku	7,034

Africa.

	Sq. miles.
Madagascar (with surrounding islands)	220,328
Teneriffe	880

Oceanica.

	Sq. miles.
Australia (with Melville, Frazer and Kangaroo Islands)	2,945,229
Borneo	278,100
Papua	223,100
Sumatra	180,407
Celebes	77,274
Luzon	57,705
New Zealand Group	104,663
Java	50,864
Mindanao	35,900
Tasmania	26,215
Timor	21,840
New Caledonia	6,775
Hawaii	4,387

AREAS OF THE PRINCIPAL LAKES.

	Sq. miles.		Sq. miles.
Caspian Sea	169,700	Eyre	3,000
Lake Superior	31,400	Poyang	2,980
Victoria Nyanza	26,600	Torrens	2,600
Aral Sea	25,913	Gairdner	2,400
Michigan	25,600	Wener	2,300
Huron	23,800	Kuku-Nor	2,040
Tchad	113,000	Albert Nyanza	2,000
Baikal	12,500	Peipus	1,920
Erie	9,500	Urmiah	1,700
Great Bear Lake	9,300	Moero	14,700
Tanganyika	9,240	Van	14,414
Winnipeg	8,900	Chapala	13,211
Great Slave Lake	8,300	Saima	12,000
Nyassa	8,200	Tana or Dembea	10,050
Ontario	7,900	Albert Edward Nyanza	11,000
Balkash	6,400	Wetter	800
Ladoga	6,190	Enara	689
Maracaybo	5,300	Dead Sea	500
Onega	4,950	Lake of the Woods	500
Bangweolo	14,450	Moelar	300
Titicaca	4,000	Ngami	300
Tengri-Nor	3,600	Halaton	255
Nicaragua	3,500	La man or Geneva	240
Great Salt Lake	3,200	Constance	190
Athabasca	3,200	Gurda	140

HEIGHTS OF THE PRINCIPAL MOUNTAINS.

North America.

	Feet.
Mount St. Elias, Alaska	19,500
Mount Wrangel, Alaska, V. (V. = Volcano)	19,000
Orizaba, Mexico, V.	17,879
Popocatepetl, Mexico, V.	17,784
Mount Hooker, British North America	17,750
Iztaccihuatl, Mexico, V.	15,708
Mount Whitney, California	14,898
Mount Fairweather, Alaska	14,708
Mount Rainier, Washington Territory	14,444
Mount Shasta, California, V.	14,442
Long's Peak, Colorado	14,271
Uncompahgre Peak, Colorado	14,235
Pike's Peak, Colorado	14,147
Mount Brewer, California	13,880
Fuego, Guatemala, V.	13,800
Agua, Guatemala, V.	13,758
Spanish Peaks, Colorado	13,600
Fremont's Peak, Wyoming Territory	13,570
Mount Hayden, Utah	13,500
Colima, Mexico, V.	12,750
Ilyanna, Alaska, V.	12,060
Mount Hood, Oregon	11,225
Mount St. Helen's, Washington Territory, V.	9,750
Mount St. John's, California	8,000
Mount Victoria, Vancouver Island	7,434
Black Dome or Mount Mitchell (highest peak), N. Carolina	6,688
Clingman's Dome, North Carolina and Tennessee	6,660
Mount Washington, New Hampshire	6,288
Mount Katahdin, Maine	5,300
Mount Marcy, New York	5,403
Mount Mansfield, Vermont	4,430
Jorullo, Mexico, V.	4,265
Mount Forbes, British North America	3,451

South America.

	Feet.
Aconcagua, Chili, V.	23,869
Nevado de Sorata, Bolivia	23,281
Nevado d'Ilimani, Bolivia	21,150
Nevado d'Illampu, Bolivia	21,043
Sahama, Peru	20,970
Lullailaco, Chili	20,800
Chimborazo, Ecuador, V.	20,606
Arequipa, Peru, V.	20,320
Supaiwasi or Huaina Potosi, Bolivia	20,163
Cotopaxi, Ecuador, V.	19,522
Cayambe-Urcu, Ecuador, V.	19,400
Antisan, Ecuador, V.	18,846
Tolima, Columbia, V.	18,476
Pichincha, Ecuador, V.	15,640
Itatiaia-Asu, Brazil	10,040

Europe.

	Feet.
Elbruz, Caucasus Mountains	18,493
Kasbeck, Caucasus Mountains	16,540
Mont Blanc, Alps Mountains	15,811
Monte Rosa, Alps Mountains	15,208
Finster-Aarhorn, Alps Mountains	14,026
Gross-Glockner, Alps Mountains	13,100
Mulhacen, Sierra Nevada, Spain	11,658
Pic de Nethou or Maladetta, Pyrenees Mountains	11,168
Etna, Sicily, V.	10,674
Gran Sasso d'Italia, Apennine Mountains	10,154
Mount Olympus, Balkan Peninsula	9,754
Mount Tatra, Carpathian Mountains	8,779
Ymesfield, Scandinavian Alps	8,670
Mount Negoi, Transylvanian Alps	8,480
The Psiloriti (Ida), Candia	8,660
Snæhaetten, Scandinavian Alps	7,549
Mount D'Or, Central Plateau, France	6,188
Iremel, Ural Mountains	5,075
Hekla, Iceland, V.	5,110
Ben Nevis, Grampian Mountains	4,368
Vesuvius, Italy, V.	3,948
Stromboli, Lipari Islands, V.	2,957

Asia.

	Feet.
Mount Everest or Gaurisankar, Himalaya Mts.	29,000
Kunchinging, Himalaya Mountains	28,158
Dhawalagiri, Himalaya Mountains	28,000
Mount Dapsang, Karakorum Mountains	27,200
Hindu Kush, Afghanistan, several peaks	18,000 to 30,000
Demavend or Elbooz, Persia, V.	18,846
Tengri-Shan, Thian-Shan Mountains	18,586
Ararat, Turkey	17,260
Bieluca, Altai Mountains	12,700
Mount Fuji or Fusiyama, Japan, V.	12,450
Dhor el Khodib, Lebanon	10,061
Sinai, Arabia	9,304
Adam's Peak, Ceylon	7,420

Africa.

	Feet.
Kilima-Njaro, Eastern Africa	18,709
Kuwendzi	18,000
Wosho, Plateau of Abyssinia	18,000
Kenia, Eastern Africa	17,184
Ras Dashan, Plateau of Abyssinia	15,159
Gambagara, Central Africa	15,000
Cameron, Guinea, V.	13,100
Teneriffe, Canary Islands, V.	12,182
Alashin or Mount Mitsin, Morocco	12,000
Cathkin, Southern Africa	10,357
Tzafazanova, Madagascar	8,947

Oceanica.

	Feet.
Mauna Kea, Sandwich Islands	13,953
Mount Kini-Balu, Borneo	13,694
Mauna Loa, Sandwich Islands, V.	13,675
Owen Stanley, Papua	13,205
Mount Korinji, Sumatra	12,240
Semeru, Java	12,120
Dempo, Sumatra, V.	10,400
Tjerinai, Java, V.	10,069
Mount Ophir, Sumatra	9,623
Egmont, New Zealand, V.	8,270
Mayon, Luzon, V.	7,163
Mount Townsend, Australia	7,351
Orohena, Tahiti	7,339
Kosciuszko, Australia	7,176
Mount Hutham, Australia	6,414
Kilauea, Sandwich Islands, V.	3,870

DRAINAGE OF THE WORLD.

North America.

PRINCIPAL RIVERS.	TRIBUTARIES.	Length in miles.	Approximate Area of Basin in sq. miles.
Mississippi River.	Lower Mississippi	1,300	165,000
Mississippi proper,	Missouri	2,900	500,000
2,600 m.	Ohio	1,250	210,000
Missouri and Lower	Arkansas	1,500	190,000
Mississippi, 4,200 m.	Red	1,200	95,000
	Small Tributaries		60,000
Entire Mississippi Basin		1,240,000	
Mackenzie		2,300	590,000
St. Lawrence		2,000	480,000
Saskatchewan		2,000	480,000
Columbia		1,000	300,000
Colorado (del Norte)		1,000	260,000
Rio Grande (del Norte)		1,500	240,000
Yukon River		1,700	200,000
Rio Grande (Mexico)		450	160,000
Sacramento		490	
San Joaquin		400	66,000
Rio Brazos		650	35,000
Rio Colorado, Texas		650	30,000
Alabama		650	30,000
St. John		450	25,000
Susquehanna		400	25,000
Hudson		325	12,000
Connecticut		350	10,000
Great Interior Basin		200,000	

South America.

	Length in miles.	Approximate Area of Basin in sq. miles.
Amazon River.	2,300	360,000
Proper course,	1,600	290,000
3,750 miles.	1,600	280,000
	1,300	160,000
	1,400	150,000
	1,300	140,000
	1,500	140,000
	1,200	95,000
		745,000
Entire Amazon River Basin		2,360,000
Rio Parana	1,400	570,000
and	1,000	160,000
La Plata River.	900	90,000
Proper course,	600	60,000
2,300 miles.		50,000
Entire Parana and La Plata Basin		1,380,000
Orinoco	1,500	350,000
Rio San Francisco	1,500	260,000
Rio Vermejo, Salado, } or Colorado del Sur. }	1,000	140,000
Magdalena	750	90,000
Rio Negro del Sur.		50,000

Europe.

	Length in miles.	Approximate Area of Basin in sq. miles.
Danube River.	360	
Danube proper,	500	
1,725 miles.	360	315,000
	550	
Dnieper	1,230	185,000
Don	1,100	170,000
Dvina	1,000	130,000
Petchora	1,000	100,000
Rhine	430	90,000
	810	
Vistula	550	69,000
Elbe	800	60,000
Hug	300	57,000
Loire	850	52,000
Duna	600	44,000
Rhone	550	37,000
Po	450	31,000
Garonne-Gironde	380	27,000
Seine	498	23,000
Thames	215	6,300
Tagus	550	
Guadiana	500	
Douro	450	170,000
Guadalquivir	400	
Ebro	350	

Aral-Caspian Basin and other Interior Basins of Asia.

	Length in miles.	Approximate Area of Basin in sq. miles.
Volga	2,500	550,000
	1,400	
Tarim	1,100	230,000
Amu-Daria	1,300	220,000
Ural	950	105,000
Syr-Daria	1,200	100,000
Hilmand	800	80,000

Asia.

	Length in miles.	Approximate Area of Basin in sq. miles.
Obe	3,000	1,250,000
	1,900	
Yenisei-Angara	3,400	1,050,000
Yang-Tse-Kiang	3,300	950,000
Lena	2,700	750,000
Amoor	2,650	730,000
Hoang-Ho	2,800	700,000
Brahmaputra	2,300	450,000
Ganges	1,600	430,000
Indus	1,850	400,000
Mecon (Cambodia Riv.)	2,500	400,000
	1,750	
Shat el Arab	1,150	250,000
	120	

Africa.

	Length in miles.	Approximate Area of Basin in sq. miles.
Nile	14,100	1,400,000
	900	
Congo	3,000	1,350,000
Niger	3,000	1,150,000
Zambezi	1,600	900,000
Orange	1,000	440,000

Oceanica.

	Length in miles.	Approximate Area of Basin in sq. miles.
Murray	1,500	500,000

* Rio, Daria, Kiang and Bahr mean "river."

AREA AND POPULATION OF THE DIFFERENT COUNTRIES OF THE WORLD.

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FROM THE BEVOLKERUNG DER ERDE FOR 1891, AND OTHER RECENT AUTHORITIES.

NORTH AMERICA.		Area in sq. miles.	Population.
British North America, omitting the Bermudas and the West Indies		3,777,550	5,027,698
Central America	British Honduras	8,292	27,668
	Guatemala	48,303	1,460,017
	Salvador	8,135	663,613
	Nicaragua	47,859	312,845
	Honduras	46,264	331,917
Costa Rica		20,877	214,264
Iceland and Greenland (Danish)		878,202	79,445
Mexico		751,584	11,395,712
United States and Territories, including the U. S. portion of the Great Lakes		3,090,777	62,982,244
Alaska Territory		577,390	
West Indies (including Miquelon and Bermuda, and omitting Trinidad, Curaçao, etc., belonging to S. America)		94,508	5,510,267
Total		9,349,741	88,005,690
SOUTH AMERICA.		Area in sq. miles.	Population.
Argentine Republic		1,077,032	3,203,700
Bolivia		515,156	1,434,800
Brazil		3,228,452	14,600,000
Chili		299,626	3,165,300
Colombia (United States of)		461,537	3,321,052
Ecuador (with Galapagos Island)		118,646	1,204,604
Paraguay		97,726	330,000
Peru (without Tacna, etc.)		439,014	2,980,000
Uruguay		86,999	711,700
Venezuela		401,067	2,238,900
Guiana	Dutch, with Curaçao, etc.	49,848	66,037
	British, with Trinidad, etc.	88,652	282,066
	French	30,465	25,797
Falkland Islands		6,574	1,926
Total		6,887,794	33,565,882
EUROPE.		Area in sq. miles.	Population.
Austria-Hungary		261,318	42,630,650
Bosnia, Herzegovina and Novi Bazar		22,572	1,489,091
Liechtenstein		61	9,593
Belgium		11,374	6,093,798
Denmark (with Faroe Islands)		15,295	2,185,159
France (with Corsica)		247,116	38,218,903
German Empire		209,995	49,424,135
Great Britain, Ireland and Islands		121,483	37,888,153
Malta, Gibraltar		127	199,317
Greece (with Islands and Thessaly)		25,143	2,217,000
Italy (including Sicily and Sardinia)		110,657	30,158,408
Montenegro		3,506	800,000
Monaco, San Marino and Andorra		206	27,224
Netherlands		12,742	4,558,095
Luxemburg		999	211,088
Portugal		34,508	4,306,554
Azore Islands		922	269,401
Madeira Islands		315	133,955
Roumania		50,589	5,000,000
Russia in Europe (with Cis-Caucasia, Nova Zembla and Sea of Azov)		2,198,487	98,840,489
Serbia		18,576	2,157,477
Spain (without the Canary Islands)		191,994	17,246,688
Sweden and Norway		173,974	4,774,409
Norway		125,598	1,999,176
Switzerland		15,761	2,993,334
Lakes Constance and Geneva		431	8,907,375
Turkey (Possessions in Europe)		105,234	3,154,375
Bulgaria and Eastern Roumelia		37,322	3,154,375
Spitzbergen, Franz-Josef Land, and Jan Mayen		46,180	
Total		3,942,530	360,580,788
ASIA (EXCLUDING MALAYSIA).		Area in sq. miles.	Population.
Afghanistan and Kafiristan		230,778	4,600,000
Arabia Independent		959,274	9,142,000
Turkish		173,752	1,050,000
Beloochistan		166,802	1,020,000
British India		1,759,514	292,382,000
Chinese Empire		4,291,931	361,500,000
Corea (Independent Kingdom of)		84,424	10,519,000
Cyprus, Aden, Hong-Kong, etc. (G. B.)		11,731	534,201
French Possessions, including Tonquin, Anam, Cambodia, etc.		189,202	19,197,000
Japan		147,629	40,072,020
Khiva, Bokhara, Pamir		127,805	1,780,000
Nepal, Bhotan, etc.		84,173	3,260,000
Persia		635,161	7,500,000
Portuguese Hindostan and Macao		1,417	585,000
Russia in Asia		6,465,339	14,126,793
Siam		308,893	9,000,000
Turkey in Asia, excluding Turkish Arabia		535,638	14,429,147
Total		16,182,433	783,697,251
AFRICA.		Area in sq. miles.	Population.
Abyssinia (Italian Protectorate)		196,147	4,500,000
Algeria (to France)		257,578	3,855,000
British South Africa (other than Cape Colony, etc.)		748,876	2,158,632
Cape Colony (British)		222,422	1,525,739
Congo State		865,383	14,100,000
Egypt (to Waday Halfa)		361,134	6,818,000
Egyptian Sudan and Nubia		758,949	3,100,000
German Possessions in South Africa		691,272	8,016,000
Marocco		313,642	536,629
Natal (British)		17,696	208,000
Orange Free State		826,836	13,200,000
Portuguese Possessions in South Africa		2,386,352	2,500,000
Sahara		812,620	13,092,000
Somali Land (including Socotra)		2,210,399	76,334,000
Soudan and Upper Guinea		113,634	679,000
South African Republic		399,012	1,000,000
Tripoli		44,906	1,500,000
Tunis (to France)			
AFRICA (Continued).		Area in sq. miles.	Population.
ISLANDS.			
Canary Islands		2,944	287,728
Cape Verde Islands		1,487	110,026
Madagascar and Comoro Islands		229,328	3,582,630
Other Islands		3,903	62,817
Total		11,514,985	168,497,091
OCEANIA.		Area in sq. miles.	Population.
MALAYSIA.			
Java and Madura		50,864	22,818,000
Sumatra Group		180,407	3,783,000
Borneo Group		284,375	1,740,000
Celebes Islands		77,274	1,500,000
Smaller Sunda Islands		35,163	2,100,000
Philippine and Sooloo Islands		114,361	7,000,000
Spice Islands		20,439	375,000
Andaman and Nicobar Islands		3,193	28,000
Other Islands		7,775	114,000
Total Malaysia		773,851	39,458,000
AUSTRALASIA AND POLYNESIA.		Area in sq. miles.	Population.
Australia and Coast Islands		2,945,229	3,073,000
Tasmania		26,215	156,622
New Zealand Group		104,663	673,500
Papua or New Guinea Group		311,965	837,000
Sandwich Islands		6,567	92,050
Feejee Islands		8,045	124,910
Samoa and Tonga Islands		1,461	62,000
Other Islands		51,958	664,877
Total Australasia and Polynesia		3,456,103	5,683,968
Total Oceania, including Malaysia		4,229,954	45,141,968
RECAPITULATION.		Area in sq. miles.	Population.
North America (with Greenland, etc.)		9,349,741	88,005,690
South America		6,887,794	33,565,882
Europe (with Nova Zembla, etc.)		3,942,530	360,580,788
Asia (not including Malaysia)		16,182,433	783,697,251
Africa		11,514,985	168,497,091
Oceania		4,229,954	45,141,968
South Polar Regions		253,678	253,678
Total		52,361,115	1,479,488,670
WEST INDIES IN DETAIL.		Area in sq. miles.	Population.
Hayti		9,266	1,001,000
Dominica		20,563	376,000
Cuba (with Dependencies)		45,884	1,521,700
Jamaica and Caymans		4,418	641,900
Porto Rico		3,531	806,700
Antigua and Barbuda		170	34,321
Bahamas (Caiques, Turks, etc.)		5,615	48,301
Barbadoes		166	171,860
Bermudas		19	15,884
Dominica		291	28,840
Grenada and Grenadines		166	46,425
Montserrat		31	10,818
Nevis, Redonda, Virgin Islands		111	11,864
St. Christopher and Anguilla		100	32,356
St. Lucia		237	40,681
St. Vincent		147	43,039
Tobago		114	19,079
St. Cruz		84	18,430
St. Thomas and St. John		58	15,333
Guadeloupe and Dependencies		723	197,866
Martinique		381	166,988
St. Eustatius, St. Martin, etc.		31	8,221
Curaçao, Buen Ayre, Trinidad, etc.		2,292	230,744
Total		94,398	5,488,400
BRITISH EMPIRE IN DETAIL.		Area in sq. miles.	Population.
IN EUROPE.			
Great Britain and Ireland		121,483	37,888,153
England		50,823	27,482,104
Wales		7,363	1,518,914
Scotland and Islands		30,463	4,033,103
Ireland		32,531	4,706,162
Isle of Man		227	55,598
Channel Islands		76	92,272
Gibraltar and Malta		127	199,317
IN ASIA.			
British India		1,759,514	292,382,000
India Proper		1,411,536	278,582,000
Ceylon (including Maldive Is.)		24,818	3,038,000
Burmah		160,220	7,554,000
Tributary Burmese States		128,190	2,050,000
Straits Settlements, etc.		34,750	1,158,000
Cyprus, Aden, Hong-Kong, etc.		11,731	534,201
IN AFRICA.			
Cape Colony, Natal, etc.		940,118	2,062,368
Other African Possessions, Protectorates, etc.*		748,876	2,158,632
IN AMERICA.			
Dominion of Canada		3,614,813	4,830,366
Quebec		193,367	1,488,586
Ontario		223,001	2,112,989
Nova Scotia		20,907	450,523
New Brunswick		27,960	321,294
Prince Edward Island		2,133	109,088
Manitoba		65,988	154,442
British Columbia		384,996	92,767
Assiniboia, Alberta, Saskatchewan		301,557	67,554
Unorganized Territory		1,865,442	32,168
Arctic Islands		502,368	955
Canadian Portion of the Great Lakes		27,094	
* Not including "Spheres of Influence."			
BRITISH EMPIRE (Continued).		Area in sq. miles.	Population.
IN OCEANICA.			
Newfoundland		42,732	193,121
East Labrador		120,005	4,211
British Honduras		8,292	27,668
British West Indies and Bermuda Is.		11,595	1,105,676
British Guiana		88,652	282,666
Trinidad, Falkland, and S. Georgia Is.		8,328	168,554
Total		9,989,008	346,729,479
GERMAN EMPIRE IN DETAIL.		Area in sq. miles.	Population.
Kingdom of Prussia		134,789	29,959,388
Bavaria		29,291	5,589,382
Württemberg		7,531	2,035,443
Saxony		5,789	3,500,513
Grand Duchy of Baden		5,803	1,566,817
Mecklenburg-Schwerin		5,137	578,565
Mecklenburg-Strelitz		1,131	97,978
Hesse		2,965	993,659
Oldenburg		2,470	354,968
Saxe-Weimar		1,387	326,091
Duchy of Anhalt		906	271,759
Brunswick		1,425	403,788
Saxe-Altenburg		511	170,864
Saxe-Coburg-Gotha		760	206,513
Saxe-Meiningen		953	223,832
Principality of Lippe-Detmold		472	138,414
Lippe-Schaumburg		131	39,163
Reuss-Schleitz		319	119,811
Reuss-Greiz		122	62,754
Schwarzburg-Rudolstadt		363	85,863
Sondershausen		333	75,510
Waldeck		433	57,283
City of Hamburg		158	622,530
Bremen		115	180,443
Lubeck		99	76,465
Province of Alsace and Lorraine		5,602	1,603,987
Possessions in Africa		691,272	3,100,000
Oceania		97,073	400,000
Total German Empire		997,149	52,921,803
FRANCE AND HER COLONIES.		Area in sq. miles.	Population.
France (including Corsica)		207,116	38,218,903
African Possessions—Algeria, Tunis, Senegal, Madagascar, etc.		2,326,050	13,173,000
Asiatic Possessions—Anam, Tonquin, Cochin China, Cambodia, etc.		189,202	19,197,000
American Possessions—French Guiana, St. Pierre, Miquelon, Martinique, etc.		31,535	377,460
Possessions in Oceania—New Caledonia, Loyalty, Marquesas and Gambier Is.		9,300	95,800
Total		2,763,203	71,062,163
RUSSIAN EMPIRE IN DETAIL.		Area in sq. miles.	Population.
Russia in Europe		2,198,487	98,849,489
Russia (including Poland and Finland)		2,045,712	96,041,735
Cis-Caucasia		102,810	2,798,754
Nova Zembla		35,545	
Spitzbergen, Franz-Josef Land, etc.		46,180	
Sea of Azov		14,520	
Russia in Asia		6,465,339	14,126,793
Trans-Caucasia		79,651	4,485,793
Siberia		4,821,951	4,314,000
Russian Central Asia		1,353,301	5,327,000
Aral and Caspian Seas		195,532	
Arctic Islands		14,994	
Total		8,663,826	112,967,282
CHINESE EMPIRE IN DETAIL.		Area in sq. miles.	Population.
China Proper (with Formosa and Hainan)		1,546,260	350,000,000
Manchuria		363,721	7,000,000
Mongolia		1,093,094	1,850,000
Sungaria and Eastern Turkestan		550,604	1,000,000
Thibet		738,254	1,500,000
Total		4,291,931	361,500,000
PRINCIPAL POWERS.		Area in sq. miles.	Population.
The Chinese Empire		4,291,931	361,500,000
The British Empire		9,989,008	346,729,479
The Russian Empire		8,663,826	112,967,282
France and her Colonies		2,763,203	71,062,163
The United States		3,668,167	62,982,244
The German Empire		997,149	52,921,803
The Austro-Hungarian Empire		261,318	42,630,650
Netherlands and her Colonies		783,242	36,477,995
Turkish Empire (including Egypt and Tripoli)		1,574,740	32,204,522
Italy and her Colonies		235,657	31,028,088
Spain and her Colonies		356,994	26,651,688

From the UNITED STATES CENSUS of 1890, the ALMANACH DE GOTHA for 1892, and other late Authorities.

[The population of the larger cities is given in nearest Even Thousands, that of the smaller places (under 10,000) in nearest Even Hundreds.]

NORTH AMERICA.			New Jersey. (1890.) (1880.)			Michigan. (1890.) (1880.)			British America. (1891.)			Russia. (1891.)			Spain. (1887.)			China. (1890.)		
United States.																				
Maine. (1890.) (1880.)			TRENTON..... 57,000 30,000			LANSING..... 13,000 8,300			Montreal, Queb..... 217,000			St. Peter's-b'rg (90) 956,000			Madrid..... 470,000			Pekin..... 1,650,000		
AUGUSTA..... 11,000 8,700			NEWARK..... 182,000 137,000			Detroit..... 206,000 116,000			Toronto, Ont..... 181,000			Moscow (1885)..... 553,000			Harcelona..... 272,000			Canton..... 1,800,000		
Portland..... 36,000 34,000			JERSEY CITY..... 163,000 121,000			Grand Rapids..... 60,000 32,000			Quebec, Queb..... 63,000			Warsaw (1890)..... 443,000			Valencia..... 171,000			Tien-tsin..... 950,000		
Lewiston..... 22,000 19,000			PATerson..... 58,000 51,000			Saginaw..... 46,000 39,000			Hamilton, Ont..... 49,000			Odessa (1885)..... 240,000			Seville..... 143,000			Han-keou..... 800,000		
Bangor..... 19,000 17,000			Camden..... 75,000 42,000			Bay City..... 28,000 21,000			Ottawa, Ont..... 44,000			Riga..... 175,000			Malaga..... 134,000			Foochow..... 636,000		
Biddeford..... 14,000 13,000			Hoboken..... 44,000 31,000						St. John, N. B..... 39,000			Kiev..... 166,000			Murcia..... 99,000			Shanghai..... 380,000		
			Elizabeth City..... 38,000 28,000						Halifax, N. S..... 39,000			Kasan..... 140,000			Saragossa..... 92,000					
									London, Ont..... 32,000			Lodz (1890)..... 125,000			Granada..... 73,000					
									St. John's, Newf'd..... 29,000			Saratov (1885)..... 123,000			Cadiz..... 63,000					
									Winnipeg..... 26,000			Kichinev..... 120,000			Valladolid..... 62,000					
												Wilna..... 103,000								
												Orel..... 78,000								
												Berditchey..... 77,000								
												Samara..... 75,000								
												Astrakhan..... 71,000								

AREA AND POPULATION OF THE UNITED STATES IN 1890.

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STATES AND TERRITORIES.	Relative rank in Population	CAPITALS.	AREA IN SQUARE MILES.			POPULATION.			INCREASE FROM 1880 TO 1890.		INCREASE FROM 1870 TO 1890.	
			Gross Area.	Land Surface.	Water Surface.	1890.	1880.	1870.	Number.	Percent- age.	Number.	Percent- age.
Alabama.....	17	Montgomery.....	52,250	51,540	710	1,513,017	1,262,505	996,992	250,512	19.84	265,513	26.63
Alaska Territory.....	48	Sitka.....	.....	577,390	.....	31,795	.....	.....	.....	.....	.....	.....
Arizona Territory.....	48	Prescott.....	113,020	112,920	100	59,620	40,440	9,658	19,180	47.43	39,782	318.72
Arkansas.....	24	Little Rock.....	53,850	53,045	805	1,128,179	802,525	484,471	325,654	40.58	318,054	65.05
California.....	22	Sacramento.....	158,360	155,980	2,380	1,208,130	864,694	560,247	343,436	39.72	304,447	54.34
Colorado.....	31	Denver.....	103,925	103,645	280	412,198	194,327	39,861	217,871	112.12	154,463	387.47
Connecticut.....	29	Hartford.....	4,990	4,845	145	746,258	622,700	537,454	123,558	16.84	85,246	15.86
Delaware.....	42	Dover.....	2,050	1,960	90	168,493	146,608	125,015	21,885	14.93	21,593	17.27
District of Columbia.....	39	Washington.....	70	60	10	230,392	177,624	131,700	52,768	29.71	45,924	34.87
Florida.....	32	Tallahassee.....	58,680	54,240	4,440	391,422	269,493	187,748	121,929	45.24	81,745	43.54
Georgia.....	12	Atlanta.....	59,475	58,980	495	1,837,353	1,542,180	1,184,109	295,173	19.14	358,071	30.24
Idaho.....	45	Boise City.....	84,800	84,290	510	84,385	32,610	14,999	51,775	158.77	17,611	117.41
Illinois.....	3	Springfield.....	56,650	56,000	650	3,826,351	3,077,871	2,539,891	748,480	24.32	537,980	21.18
Indiana.....	8	Indianapolis.....	36,350	35,910	440	2,192,404	1,978,301	1,680,637	214,103	10.82	297,664	17.71
Indian Territory.....	.....	Tahlequah.....	31,400	31,000	400	186,490	.....	.....	.....	.....	.....	.....
Iowa.....	10	Des Moines.....	56,025	55,475	550	1,911,896	1,624,615	1,194,020	287,281	17.68	430,595	36.06
Kansas.....	19	Topeka.....	82,080	81,700	380	1,427,096	906,096	364,399	437,000	43.27	631,697	173.35
Kentucky.....	11	Frankfort.....	40,400	40,000	400	1,858,635	1,648,690	1,321,011	209,945	12.73	327,679	24.81
Louisiana.....	25	Baton Rouge.....	48,720	45,420	3,300	1,118,587	939,946	726,915	178,641	19.01	213,031	29.31
Maine.....	30	Augusta.....	33,040	29,895	3,145	661,086	648,936	626,915	12,150	1.87	22,021	3.51
Maryland.....	27	Annapolis.....	12,210	9,860	2,350	1,042,390	934,943	780,894	107,447	11.49	154,049	19.73
Massachusetts.....	6	Boston.....	8,315	8,040	275	2,238,943	1,783,855	1,457,351	455,858	25.57	325,734	22.35
Michigan.....	9	Lansing.....	58,915	57,430	1,485	2,093,889	1,636,917	1,184,059	456,952	27.92	452,878	38.25
Minnesota.....	20	St. Paul.....	83,365	79,205	4,160	1,301,826	780,773	439,706	521,053	66.74	341,067	77.57
Mississippi.....	21	Jackson.....	46,810	46,140	670	1,289,600	1,131,597	827,922	158,003	13.96	302,675	36.68
Missouri.....	5	Jefferson City.....	69,415	68,735	680	2,679,184	2,168,380	1,721,295	510,804	23.56	447,065	25.97
Montana.....	44	Helena.....	146,080	145,310	770	132,159	39,159	20,595	93,000	237.49	18,564	90.14
Nebraska.....	26	Lincoln.....	77,510	76,840	670	1,058,910	452,402	122,993	606,508	134.06	329,409	267.83
Nevada.....	49	Carson City.....	110,700	109,740	960	45,761	62,266	42,491	16,505	26.51	19,775	46.54
New Hampshire.....	38	Concord.....	9,305	9,005	300	376,530	346,991	318,300	29,599	8.51	28,691	9.01
New Jersey.....	18	Trenton.....	7,815	7,455	360	1,444,933	1,131,116	906,096	313,817	27.74	225,020	24.83
New Mexico Territory.....	43	Santa Fe.....	122,580	122,460	120	153,930	119,565	91,874	34,028	28.46	27,691	30.14
New York.....	1	Albany.....	49,170	47,620	1,550	5,997,853	5,082,871	4,382,759	914,982	18.00	700,112	15.97
North Carolina.....	16	Raleigh.....	52,250	48,580	3,670	1,617,947	1,399,750	1,071,361	218,197	15.59	328,389	30.65
North Dakota.....	41	Bismarck.....	70,795	70,195	600	182,719	36,909	.....	145,810	395.05	.....	.....
Ohio.....	4	Columbus.....	41,060	40,760	300	3,672,316	3,198,062	2,665,260	474,254	14.83	532,802	19.99
Oklahoma Territory.....	40	Guthrie.....	39,030	38,830	200	61,834	.....	.....	.....	.....	.....	.....
Oregon.....	38	Salem.....	96,030	94,560	1,470	313,767	174,768	90,923	138,999	79.53	83,845	92.22
Pennsylvania.....	2	Harrisburg.....	45,215	44,985	230	5,258,014	4,282,891	3,521,951	975,123	22.77	760,940	21.61
Rhode Island.....	35	Providence and Newport.....	1,250	1,085	165	345,506	276,531	217,353	68,975	24.94	59,178	27.23
South Carolina.....	23	Columbia.....	30,570	30,170	400	1,151,149	995,577	705,606	155,572	15.63	289,971	41.10
South Dakota.....	37	Pierre.....	77,650	76,850	800	328,808	98,268	.....	230,540	234.60	.....	.....
Tennessee.....	13	Nashville.....	42,050	41,750	300	1,767,707	1,542,359	1,258,520	225,159	14.60	283,839	22.55
Texas.....	7	Austin.....	265,780	262,290	3,490	2,235,523	1,591,749	818,579	643,774	40.44	773,170	94.45
Utah Territory.....	40	Salt Lake City.....	82,190	81,900	2,780	207,905	143,903	86,786	63,942	44.42	57,177	65.88
Vermont.....	36	Montpelier.....	9,565	9,135	430	332,422	332,286	330,551	136	.04	1,735	0.52
Virginia.....	15	Richmond.....	42,450	40,125	2,325	1,655,980	1,512,565	1,225,163	143,415	9.48	287,402	23.46
Washington.....	34	Olympia.....	69,180	66,880	2,300	349,390	75,116	23,955	274,774	365.13	51,161	213.57
West Virginia.....	28	Charleston.....	24,780	24,645	135	762,794	618,457	442,014	144,337	23.34	176,443	39.92
Wisconsin.....	14	Madison.....	56,040	54,450	1,590	1,686,880	1,315,497	1,054,670	371,383	28.23	260,827	24.73
Wyoming.....	47	Cheyenne.....	97,890	97,575	315	60,705	20,789	9,118	39,916	192.01	11,671	128.00
Delaware, Raritan, and Lower New York Bays.....	.....	.....	.....	.....	720	.....	.....	.....	.....	.....	.....	.....
American Portion of the Great Lakes.....	.....	.....	.....	.....	65,177	141,709	.....	.....	.....	.....	.....	.....
Totals.....	.....	.....	3,668,167	3,547,390	120,777	62,982,444	50,155,783	38,558,371	12,466,467	24.86	11,597,412	30.08

* Decrease.

† Number of Indians, not taxed, in the states and territories other than Indian Territory and Alaska. The total number of Indians in the United States, exclusive of Alaska, but including 32,567 counted in the general census of 1890, is 249,273. The Indians of Alaska number 23,274.

AGRICULTURAL STATISTICS OF THE UNITED STATES—FROM REPORT OF DEPARTMENT OF AGRICULTURE, 1890.

STATES AND TERRITORIES.	LIVE STOCK.						Rye, Bushels.	Corn, Bushels.	Oats, Bushels.	Wheat, Bushels.	Potatoes, Bushels.	Hay, Tons.	Tobacco, Pounds.
	Horses.	Mules.	Milch Cows.	Oxen and other Cattle.	Sheep.	Swine.							
Maine.....	99,657	.....	175,949	157,386	542,248	79,043	28,000	1,008,000	2,847,000	543,000	7,882,000	1,292,791	.....
New Hampshire.....	52,402	.....	103,011	116,169	192,824	52,713	33,000	1,259,000	862,000	140,000	3,072,000	644,729	.....
Vermont.....	84,353	.....	234,642	169,053	362,112	77,888	75,000	1,839,000	2,793,000	335,000	3,876,000	1,028,303	.....
Massachusetts.....	63,838	.....	174,729	98,774	56,530	68,580	213,000	1,868,000	598,000	.....	3,632,000	674,305	3,893,000
Rhode Island.....	20,258	.....	24,041	12,194	20,231	13,796	15,000	402,000	151,000	.....	668,000	104,829	.....
Connecticut.....	51,376	.....	134,897	102,143	46,759	55,598	348,000	2,014,000	780,000	30,000	2,677,000	574,419	9,603,000
New York.....	673,950	5,288	1,552,373	783,634	1,548,426	686,321	2,724,000	17,101,000	23,913,000	9,288,000	29,688,000	5,426,757	6,488,000
New Jersey.....	96,294	9,501	183,493	67,856	103,170	204,669	1,098,000	11,185,000	2,449,000	1,680,000	3,599,000	586,386	.....
Pennsylvania.....	6,6931	24,021	938,665	852,267	945,002	1,193,415	4,458,000	38,043,000	21,972,000	16,049,000	16,305,000	2,997,068	24,180,000
Delaware.....	23,000	4,184	29,543	26,866	22,294	51,185	8,000	4,128,000	298,000	919,000	317,000	66,363	.....
Maryland.....	130,303	13,761	141,826	127,335	153,763	343,079	326,000	16,333,000	1,357,000	6,208,000	1,654,000	376,239	14,017,000
Virginia.....	259,317	36,083	272,036	419,523	444,563	1,009,659	375,000	36,922,000	6,587,000	5,614,000	2,346,000	387,936	61,034,000
North Carolina.....	154,229	96,295	272,155	398,414	414,819	1,291,893	365,000	36,264,000	6,198,000	3,156,000	1,377,000	154,332	25,755,000
South Carolina.....	77,303	79,269	156,575	210,396	102,031	670,652	44,000	16,078,000	4,168,000	750,000	274,000	33,810	.....
Georgia.....	115,629	155,700	354,618	580,816	411,846	1,627,008	151,000	31,306,000	5,455,000	1,411,000	638,000	47,995	.....
Florida.....	34,737	13,000	54,951	565,201	110,351	358,021	.....	4,570,000	573,000	.....	155,000	.....	.....
Alabama.....	134,805	143,258	311,805	454,042	286,238	1,530,001	31,000	25,390,000	4,864,000	1,319,000	601,000	51,383	.....
Mississippi.....	139,468	196,436	309,234	441,862	240,148	1,443,813	6,000	24,396,000	4,778,000	266,000	674,000	58,968	.....
Louisiana.....	124,650	94,785	177,611	295,731	115,082	706,947	.....	16,079,000	567,000	.....	511,000	78,331	.....
Texas.....	1,350,344	213,146	843,342	7,167,853	4,759,640	2,321,246	57,000	63,802,000	11,059,000	3,575,000	700,000	189,795	.....
Arkansas.....	187,153	129,866	329,121	587,212	269,484	1,663,275	45,000	33,443,000	3,967,000	1,575,000	864,000	56,235	1,156,000
Tennessee.....	303,266	229,246	377,740	484,578	511,118	2,242,215	293,000	67,692,000	6,486,000	7,873,000	2,407,000	321,071	45,641,000
West Virginia.....	146,647	6,867	179,939	286,538	508,654	468,226	148,000	13,435,000	1,506,000	2,326,000	1,849,000	397,345	4,496,000
Kentucky.....	390,577	155,858	717,493	923,728	805,978	2,255,102	834,000	63,045,000	3,954,000	9,152,000	3,228,000	345,534	283,306,000
Ohio.....	771,607	24,472	391,316	568,601	3,943,589	2,111,014	623,000	65,876,000	20,004,000	29,984,000	11,925,000	2,960,066	35,195,000
Michigan.....	477,407	6,095	454,962	547,716	2,240,841	978,755	279,000	26,580,000	25,033,000	20,271,000	8,611,000	1,545,317	.....
Indiana.....	607,577	53,827	602,356	957,843	1,278,000	2,845,320	468,000	89,025,000	17,800,000	27,928,000	5,749,000	1,812,500	16,153,000
Illinois.....	1,123,973	109,947	1,072,473	1,713,966	688,387	5,433,250	4,098,000	187,440,000	70,821,000	18,161,000	11,706,000	4,625,482	2,947,000
Wisconsin.....	437,820	7,066	674,588	805,170	809,009	1,087,902	3,738,000	33,061,000	38,919,000	13,066,000	11,006,000	2,105,391	12,846,000
Minnesota.....	394,783	11,412	492,117	617,256	327,375	527,526	426,000	21,286,000	38,402,000	38,356,000	7,587,000	2,112,500	.....
Iowa.....	1,095,310	42,316	1,331,888	2,577,161	475,816	5,805,000	1,647,000	232,439,000	71,397,000	19,041,000	16,909,000	5,272,783	.....
Missouri.....	769,769	230,097	774,122	1,515,935	1,198,200	5,096,000	550,000	175,345,000	24,579,000	17,638,000	6,044,000	1,802,494	13,109,000
Kansas.....	726,318	94,714	750,815	1,829,428	438,313	2,734,195	2,668,000	55,269,000	31,269,000	28,195,000	9,063,000	1,935,450	.....
Nebraska.....	542,036	45,792	420,069	1,306,372	239,400	2,309,779	1,570,000	55,310,000	22,430,000	15,315,000	6,321,000	1,441,440	.....
California.....	372,084	42,803	268,628	697,805	4,035,120	647,000	334,000	4,396,000	1,943,000	29,121,000	4,442,000	1,539,454	.....
Oregon.....	186,841	3,315	88,730	762,728	2,929,830	270,164	17,000	173,000	6,658,000	12,865,000	2,092,000	621,314	.....
Nevada.....	51,523	2,369	18,399	373,527	700,986	19,232	.....	.....	.....	250,000	383,000	220,078	.....
Colorado.....	137,835	8,000	65,563	1,048,933	1,783,891	29,508	29,000	767,000	2,498,000	1,777,000	2,717,000	370,013	.....
The Territories*.....	1,135,437	42,238	497,564	6,179,018	10,280,904	775,808	293,000	13,864,000	33,684,000	55,035,000	7,816,000	2,318,928	2,967,000†
Total.....	14,213,837	2,331,027	15,952,883	36,840,024	44,336,072	107,659,761	28,415,000	1,498,970,000	523,621,000	299,262,000	202,365,000	46,643,934	565,791,000

A

Special Geography

of the

New England States

Prepared for the New England Editions of
"WARREN'S COMMON SCHOOL GEOGRAPHY" and "WARREN'S BRIEF COURSE IN GEOGRAPHY."

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SPECIAL GEOGRAPHY OF MAINE.

1. Position and Area.—MAINE is the most north-easterly State of the Union. It is nearly as large as the other five New England States together, having a land area of 29,895 square miles.

2. Coast.—The coast is bold and rocky, indented by many bays and inlets, and lined by numerous islands. Maine has a greater number of good harbors than any other State in the Union.

Mount Desert, the largest island on the coast, contains about one hundred square miles. It is a favorite summer resort, on account of the grandeur of its scenery, combining ocean and mountain views which are unsurpassed.

The well-known *Isles of Shoals*—a group of eight islands—belong partly to Maine and partly to New Hampshire. They are much visited in summer.

3. Surface.—The surface of Maine is hilly, though comparatively level near the coast. The general slope of the land is southward to the sea, though the northern part slopes northward to the St. John River.

The range of mountains forming part of the boundary between this State and the Province of Quebec is a water-shed separating the rivers of the Atlantic slope from those of the St. Lawrence Basin.



MOUNT KATAHDIN.

The highest mountains in the State are Mount Katahdin, 5200 feet; Mount Abraham, 3388 feet; Mount Blue, 2700 feet; Mars Hill, 2000 feet.

4. Rivers.—The rivers follow the two principal slopes of the surface,—the tributaries of the St. John draining the northern part of the State; and the St. Croix, Penobscot, Kennebec, Androscoggin, Saco, and many smaller streams, the southern.

Flowing through a hilly country, these rivers are generally too much obstructed by falls and rapids for extensive navigation; but for that very reason they offer remarkable advantages for manufacturing. Maine is said to have more available water-power than any other portion of the earth's surface of equal extent.

Questions.—How does the area of Maine compare with that of the other New England States? Describe the coast. Has Maine many good harbors? Is Mount Desert Island mountainous or level? What is said of the Isles of Shoals?

What is the general surface of Maine? Where is it level? What two slopes of land are there? What range of mountains is a water-shed? What rivers drain the northern slope? The southern? What is said of the water-power of Maine?

5. The *Penobscot* and the *Kennebec* are the principal rivers,—draining, with their branches, the centre of the State.

The Penobscot is navigable for the largest vessels to Bangor, about sixty miles from the sea.

The Kennebec is navigable for ships to Bath, twelve miles, and for steamboats and small vessels to Augusta, fifty miles from the sea.

6. Lakes.—Scattered all over the surface lie many beautiful lakes, the larger of which are in the central and northern parts of the State, forming the reservoirs for the great rivers. One-tenth of the surface of Maine is covered with water.

Moosehead is the largest lake. It is thirty-five miles long, and from four to twelve miles wide. This lake and the Rangeley Lakes are famous resorts for trout fishing.

7. Soil.—The soil is not generally very fertile, especially among the mountains and near the coast. The best land is in the river-valleys, and in the south-western counties.

8. Climate.—The climate is one of great extremes,—very cold in winter, and sometimes very hot in summer.

The mercury in the thermometer ranges, during the year, from twenty or thirty degrees below zero to 100 degrees above; and the changes are sometimes great and sudden. The winters are very severe, especially in the north, and snow lies on the ground from three to five months.

Cold easterly winds from the Atlantic, heavily charged with fogs, blow upon the coast in the spring and early summer, and form a very disagreeable feature of the climate in that part of the State.

9. Animals.—The dense forests still shelter the moose and a small kind of reindeer called the caribou; and the bear, deer, beaver, and many other wild animals are common.

The waters of the coast abound with fish,—chiefly cod, herring, menhaden, mackerel, alewives, and lobsters; and the lakes and rivers are well stocked with pickerel, trout, and salmon.

10. Productions and Occupations.—The leading industries of Maine are such as grow out of the natural productions of the land and water, and the unrivalled water-power supplied by the rivers. These industries are *Manufacturing, Lumbering, Farming, Fishing, Quarrying, Ice-Packing, and Commerce.*

11. *Manufacturing* is the most important business of the State. The leading articles are cotton and woollen goods, and sawed and planed lumber.

Other important manufactures are boots and shoes, flouring- and grist-mill products, leather, paper, and machinery. Bleaching and dyeing, the burning of lime, the building of ships, and quarrying of granite, are valuable and growing industries.

Maine ranks among the first States of the Union in ship-building and in the production of sawed lumber, and, with the exception of New York, owns more ships than any other State.

Questions.—Why are the rivers better adapted to manufacturing than to navigation? How far is the Penobscot navigable? The Kennebec? Where are the lakes?

Where is the best land? What is the general character of the climate? What unpleasant feature of the climate on the coast? Name the wild animals. The fish.

What is said of the leading industries? Which is the most important? Name the leading manufactures. What rank does Maine hold in ship-building and lumbering?

12. Lumbering.—Vast forests of pine, spruce, and hemlock cover the northern parts of the State; and the maple, beech, birch, and ash are abundant in certain sections. The forests still furnish one of the chief sources of wealth, though they are fast diminishing before the axe of the woodman.

The cutting down of the trees, and the rafting of the logs down the rivers to the saw-mills, are called Lumbering.

The products of the saw-mills are included in the Manufactures. But the term *Lumbering* is often applied to both these industries.

13. Farming is not generally one of the most profitable employments in Maine, owing to the climate and the quality of the soil.

Corn, oats, wheat, and barley are, however, raised;

15. Quarrying.—Immense quantities of roofing-slate, granite, and limestone are taken from the quarries, and prepared for exportation. The limestone is burned to make lime.

16. Ice-Packing.—The packing of ice for exportation is one of the most important among the minor industries.

The Kennebec River is noted for the export of ice; on its banks are immense buildings, in which the ice is stored in winter for summer exportation.

17. Commerce.—With so many valuable productions and such excellent harbors, Maine naturally has an extensive commerce, both foreign and domestic.

This trade is increased by the lines of railway connecting the principal towns with the other States of the Union, and with Canada and New Brunswick.

The exports are the principal productions of the State:—manufactures; ice; salted and canned fish and vegetables; granite, slate, and lime; hay, butter, wool, and potatoes. Grain is not exported; it is one of the imports.

18. Government.—The *Law-Making* powers are entrusted to a Legislature, elected biennially by the people.

The Legislature consists of a House of Representatives, of one hundred and fifty-one members; and a Senate, of thirty-one members.

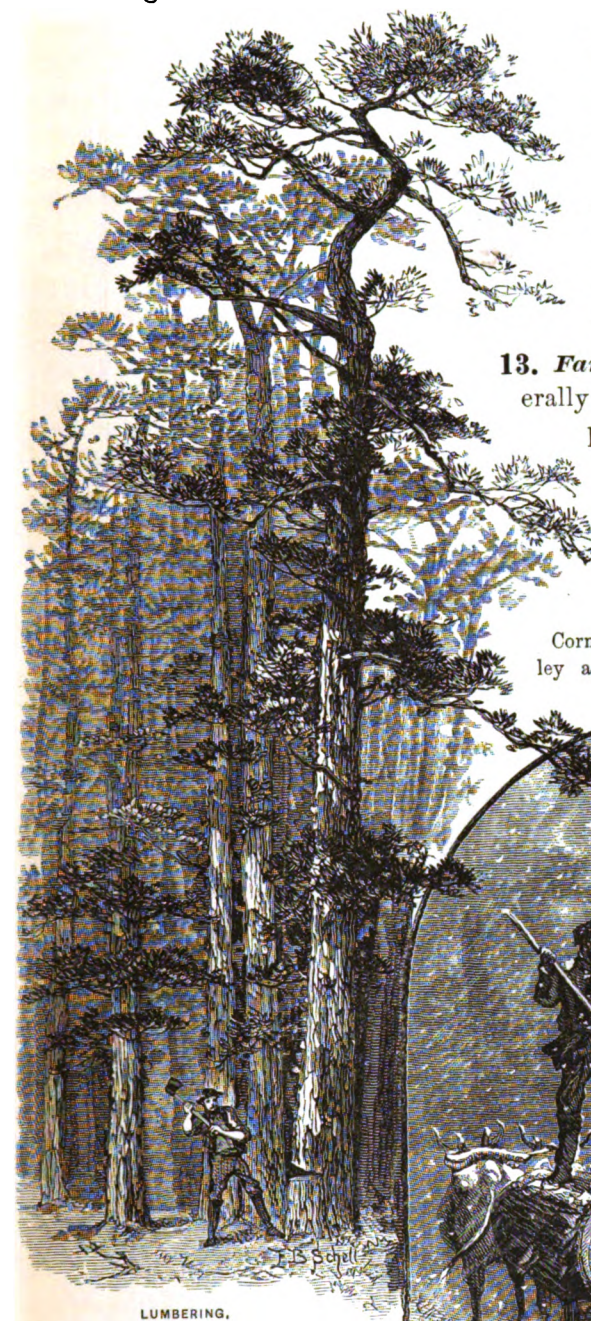
19. The Judiciary consists of a Supreme Court, and of various minor courts in the separate counties and towns.

The Supreme Court is composed of a Chief Justice, and seven associate justices, appointed by the Governor and Council for seven years.

20. The Executive officers are a Governor, with a Council of seven; a Secretary of State, Treasurer, Attorney-General, Adjutant-General, and Superintendent of Schools.

The Governor is elected biennially by the people. The other officers are chosen by the Legislature—except the Superintendent of Schools, who is appointed by the Governor.

21. Education.—The public schools are open to all between the ages of four and twenty-one, and are supported partly by the State and partly by the separate towns.



LUMBERING.

and hay, potatoes and other vegetables, wool and butter, are produced in sufficient quantities for exportation.

14. Fishing.—In this pursuit, Maine ranks next to Massachusetts. The fish, which are salted for exportation, are principally the cod, herring, and mackerel. They are taken upon the coast, and upon the banks of Newfoundland. An active business in canning fish, lobsters, etc., is carried on.

Questions.—Where are the evergreen forests? What is said of the value of the forests? What is Lumbering? When is lumber included among manufactures? Why is not farming in Maine so productive as manufacturing? Name the agricultural products. Which of them are exported? What grazing products are exported? What rank does Maine hold in the fisheries? What fish are salted for exportation? Where are they caught? What canned articles are exported?

Questions.—What kinds of stone are quarried? What is the limestone used for? The slate? The granite? What is said of ice-packing? What river is noted for the export of ice? What advantages for commerce has Maine? What manufactured articles are exported? What farming products? Fish? What else? Is grain exported or imported? Why? What is said of the law-making powers? The judiciary? The executive officers? How are the public schools supported?

Besides the common schools, there are more than one hundred and fifty free *High Schools*, and three *Normal Schools*—the Eastern at Castine, the Western at Farmington, and one at Gorham.

For higher instruction, there are many institutions, public and private.

Among them are *Bowdoin College*, at Brunswick; *Colby University*, at Waterville; *Bates College*, at Lewiston; the *State College of Agriculture and Mechanic Arts*, at Orono; the *Maine Wesleyan Seminary and Female College*, at Kents' Hill; the *Westbrook Seminary*, at Deering; *Classical School*, at Hallowell; *Classical School*, at Waterville, and *Maine Central Institute*, at Pittsfield.

22. History.—Settlement.—In 1622, the first permanent settlement was made by the English at the mouth of the Piscataqua River. In 1624, a colony was established at York. In 1625, Pemaquid was occupied.

From 1630 to 1632 settlements were made in Saco, Biddeford, Scarborough, Cape Elizabeth, and Portland, all which continued to grow prosperously until the Indian war of 1675, when they were all destroyed.

In 1652 Massachusetts, considering her grant to embrace the southern portion of Maine, with the consent of the inhabitants, asserted her jurisdiction over the territory as far as the Penobscot. East of the Penobscot the French had possession, and very little improvement was made there until after the Revolutionary war.

The province between the Kennebec and Penobscot Rivers was granted by Charles II., in 1664, to his brother, the Duke of York, who established a government there, the seat of which was at Pemaquid, where a strong fort was built. This province was surrendered to Massachusetts in 1686, which, with all east to the St. Croix, was confirmed to her by the provincial charter of 1691. From this time the "*District of Maine*" continued a part of Massachusetts until 1820, when it was admitted into the Union as a State.

23. Indian Wars.—During the colonial period, the people of Maine, like those of the other American Colonies, suffered greatly from the Indians.

The nearness to Canada was a source of frequent danger; for the French (who held that country) were for many years at war with England and her colonies, and stirred up the savages to the most dreadful atrocities; so that the settlers lived in constant terror.

It was not until the close of the French and Indian War, in 1760, that the colonists were freed from these perils. From that time forward civilization in Maine made rapid progress.

24. Wars with Great Britain.—The tranquillity of the colony was but little disturbed by the war of the Revolution, though the people bore an honorable part in the contest.

During our war with Great Britain in 1812, the province was again exposed to the horrors of a frontier struggle. Canada was now in possession of the British; and Maine, by her long line of coast and frontier, was open to attacks by land and sea. Several conflicts took place along the coast and in the interior. Eastport and Castine were captured and held by the British.

Questions.—How many normal schools are there, and where situated? Name the three colleges. When were the first permanent settlements made? When were the early settlements destroyed? Over what portion of Maine did Massachusetts claim jurisdiction? What part was in the possession of the French? What section was granted to the Duke of York? When was Maine admitted into the Union? Why did the French excite the Indians to war?

25. The Civil War.—In the great Civil War, the people of Maine distinguished themselves, at home and on the field, by their patriotism and valor.

26. Towns.—*Portland*, the largest and wealthiest city in the State, is beautifully situated on a high peninsula, which extends into an arm of Casco Bay.

From its elevated position the town commands a fine view of the harbor with its numerous islands.

The harbor is safe and very deep, and is one of the best upon our Atlantic coast. This fact, together with the various railways connecting the city with Canada and the principal towns of the Union, gives Portland great commercial advantages; and the commerce, both foreign and domestic, is more extensive than that of any other port in the State.

Portland is connected, by lines of steamers, with the principal ports upon the Atlantic, from Halifax to New York; and in winter, when the St. Lawrence is frozen over, Canadian steamships make regular trips from Portland to Liverpool and Glasgow, carrying a great amount of productions and bringing various imports in return.

The principal exports, besides Canadian merchandise, are manufactured goods, and other leading products of the State.

The town was settled in 1632; was twice destroyed during the French and Indian Wars; and was burned by the British in 1775. In 1866, about one-third of the city was destroyed by fire; but it was soon rebuilt, in a more costly and elegant style than before.

27. Lewiston, ranking next in size to Portland, is situated at the Falls of the Androscoggin, which afford a water-power equal to the best in New England.

This natural advantage has led to the establishment of very extensive manufactures, of which the most important are cotton and woollen goods; and next to these, lumber, boots and shoes, and machinery.

The rapid growth of the town is increased by several railways, which extend in many directions, and communicate with the most important places in and out of the State.

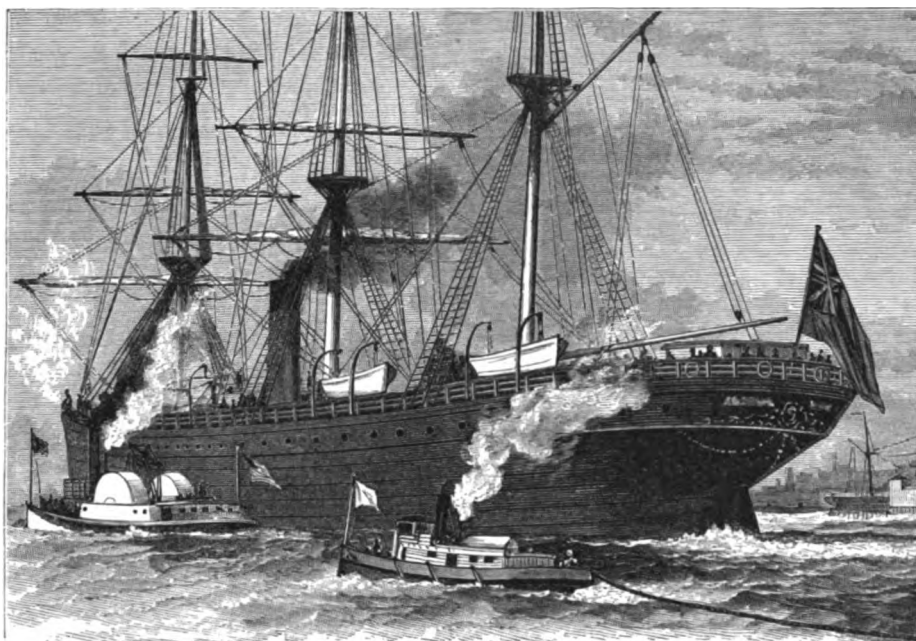
28. Bangor is situated at the head of navigation on the Penobscot, sixty miles from the sea. Next to Chicago, it is the greatest lumber market in the Union.

It is the commercial centre of a large farming and lumbering district; carries on a variety of manufactures, and an active coasting trade. There are likewise good railway facilities. The principal export is lumber.

29. Biddeford is at the Falls of the Saco, six miles from its mouth. The water-power afforded by these falls is used for the manufacture of cotton and woollen goods, lumber, and a variety of other articles. Granite is largely quarried here.

Questions.—From what date did the country improve rapidly? What is said of the Revolutionary War? The War of 1812? The great Civil War?

Describe the situation of Portland. The harbor. State the commercial advantages of the city. The exports. The history. Why has Lewiston become the seat of such extensive manufactures? Where is Bangor? For what is it noted? What is said of Biddeford?



OCEAN STEAMER LEAVING PORTLAND.

30. Augusta, at the head of navigation on the Kennebec, fifty miles from the ocean, is the capital.

A dam, 1000 feet long, just above the city, affords immense water-power, which is used chiefly for the manufacture of lumber and cotton goods.

The position of Augusta, at the head of navigation, naturally gives it the trade of the surrounding country, and this is increased by railway communication.

31. Bath, on the Kennebec, twelve miles from the sea, enjoys great commercial advantages; for the river here is a mile wide, of great depth, and seldom freezes. The railway connections are also extensive.

Ship-building is the principal business. Bath builds a greater tonnage of wooden vessels than any other town in the Union.

32. Rockland, on the west side of Penobscot Bay, has a broad and deep harbor, and an active trade—particularly in the export of lime.

The other leading industries are ship-building; the manufacture of boots and shoes, and other goods; the quarrying of limestone, from the immense quarries in the neighborhood; the burning of lime, and the cutting of ice.

33. Auburn, on the west bank of the Androscoggin, opposite Lewiston, manufactures more boots and shoes than any other town in the State.

Cotton goods and other manufactures are also important industries.

34. Calais is at the head of tide-water on the St. Croix; and has connection by railway with Bangor and St. John, and by steamers with St. John, Portland, and Boston.

The principal occupations are ship-building, and the sawing and export of lumber. Being at the head of tide-water, it commands the trade of the surrounding country.

35. Saco, on the left bank of the Saco River, is connected by four bridges with the town of Biddeford, which lies on the opposite side. Saco has a considerable coasting-trade, and manufactures lumber, cotton goods, boots and shoes, etc. Old Orchard Beach is in the town of Old Orchard, which was formerly within the city limits.

36. Belfast, on the Penobscot Bay, has a wide, deep harbor. The leading interests are lumber, ship-building, the fisheries, and the manufacture of boots and shoes, paper, bricks, and machinery.

37. Ellsworth, at the head of navigation on the Union River, is the centre of a local trade, manufactures lumber, and is engaged in fishing and ship-building.

38. Cape Elizabeth, about a mile from Portland, is one of the suburbs of that town. The principal employments are manufacturing and agriculture.

39. Waterville, on the Kennebec River, has good water-power and extensive manufactures, of which cotton goods, carriages, and cars are the most important.

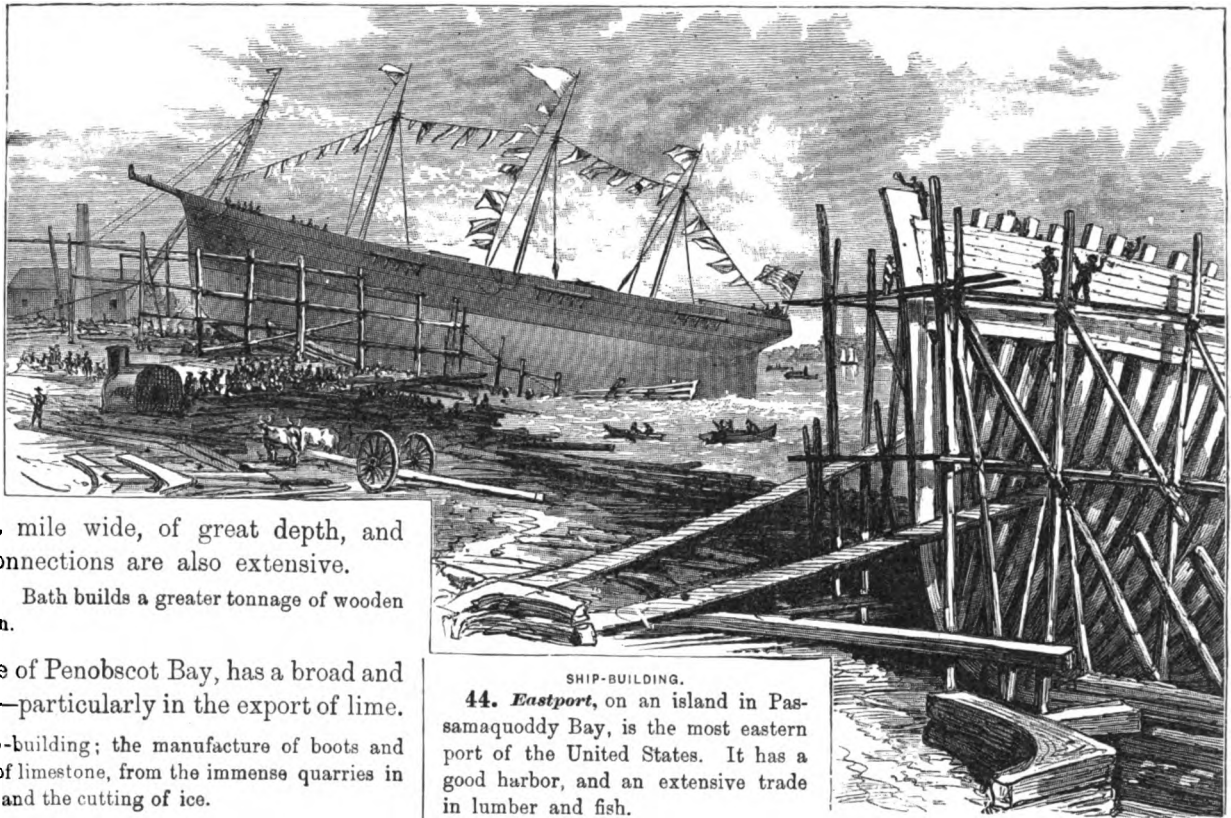
40. Brunswick, near the mouth of the Androscoggin River, has facilities for ship-building, and water-power for manufacturing, which is the leading business.

41. Gardiner, on the Kennebec River, six miles below Augusta, has some manufactures, and is largely engaged in the ice trade.

42. Old Town, on the Penobscot River, twelve miles north of Bangor, manufactures lumber, barrels, boats and oars.

43. Skowhegan, on the Kennebec River, is an enterprising town. It is the market and trading-place for a rich agricultural region, has excellent water-power, and manufactures lumber, axes, woollens, paper, and marbled slate.

Questions.—Where is Augusta? What goods are manufactured? Why has it the trade of the surrounding country? What are the advantages of Bath? What rank in ship-building? What is the chief export of Rockland? What are the other leading industries? What town takes the lead in the manufacture of boots and shoes? What commercial connections has Calais? What is said of Saco? Belfast? Ellsworth? Cape Elizabeth? Waterville? Brunswick? Gardiner?



SHIP-BUILDING.

44. Eastport, on an island in Passamaquoddy Bay, is the most eastern port of the United States. It has a good harbor, and an extensive trade in lumber and fish.

45. Bucksport, on the Penobscot River, below Bangor, is a winter harbor for Bangor vessels, and manufactures ships, lumber and steel.

46. Farmington, on Sandy River, and a branch of Maine Central Railway, is a beautiful town and a popular summer resort. Manufactures lumber, carriages, and drums.

47. Boothbay, on the coast, east of the mouth of the Kennebec River, has an excellent harbor, containing islands which attract many summer visitors. It is interested in navigation, fishing, and the manufacture of fish-oil and guano.

48. Hallowell, on Kennebec River, near Augusta, contains extensive granite quarries, has a variety of manufactures, and, like other towns on the river, is engaged in packing and exporting ice. It contains iron foundries and tanneries.

49. Camden, beautifully situated on Penobscot Bay, is engaged in ship-building, the ice trade, and in the manufacture of lime, boots and shoes, and woollen goods.

50. Waldoboro' builds many vessels, and has extensive brick-yards and a pottery.

51. Kittery, the birthplace of Sir William Pepperell, on the Piscataqua River, opposite Portsmouth, contains a United States Navy-Yard.

52. Castine, one of the oldest towns in the State, is beautifully situated on an arm of Penobscot Bay. It is becoming a favorite summer resort.

53. Deer Isle, on an island east of Penobscot Bay, is engaged in quarrying granite, canning lobsters, and fishing.

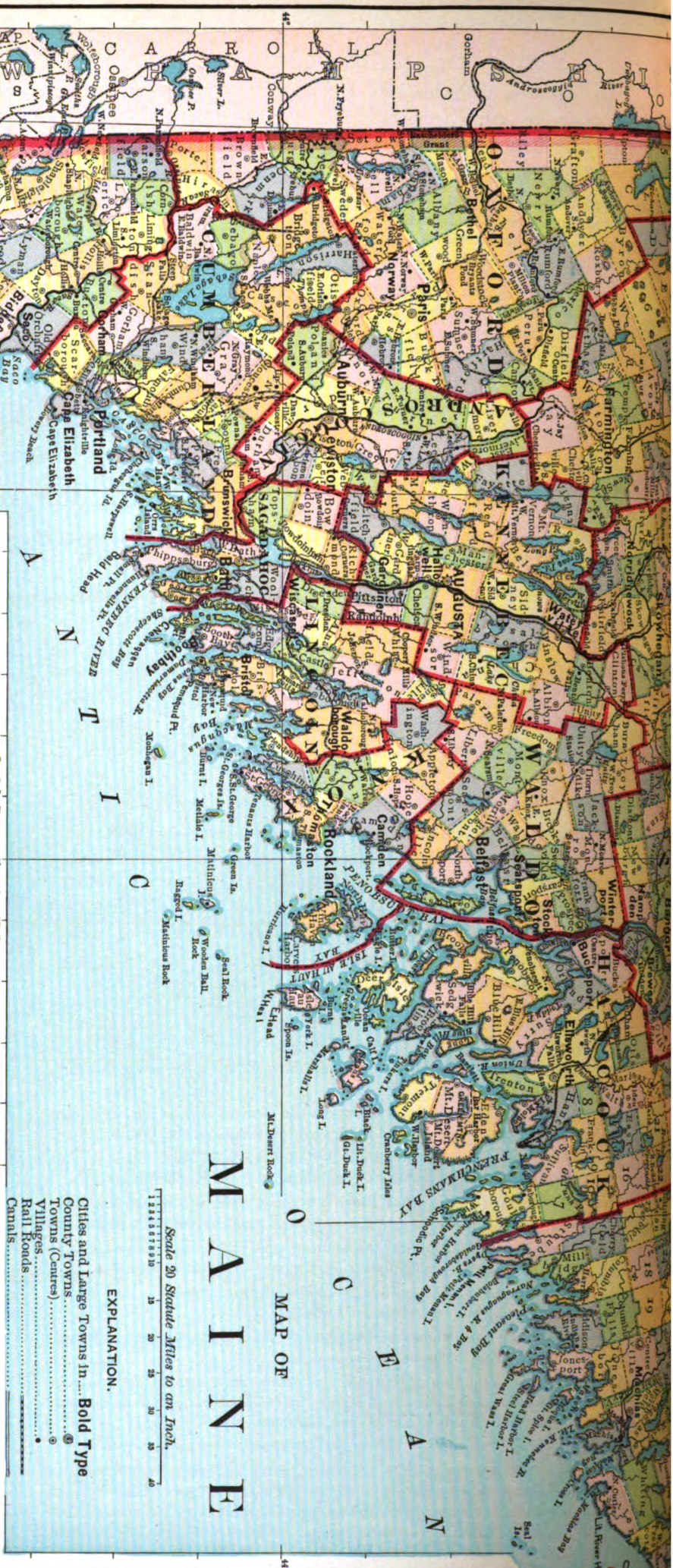
54. Houlton is the centre of trade and supplies for the lumbermen of that region.

55. Bristol includes the site of the early seat of government and fort of Pemaquid. It was visited by Gosnold in 1602, and settled as early as 1625 under title from an Indian chief, Samoeet, to John Brown—probably the first Indian deed to a white man.

56. York, originally called Agamenticus, was settled about 1624. It was endowed with a city charter and government by Sir Ferdinando Gorges in 1641, under the name of Gorgeana, which name and government it retained ten years—the first English city upon the continent of America. It was organized in 1652 into a town under the name of York, being the second in the State.

57. Other important towns are *Deering, Gorham, Hampden, Thomaston, Brewer, Westbrook, Fairfield, Vassalboro', Orono, Dexter, Norway, Paris, Dover, Machias, Wiscasset, and Alfred.* Most of the large towns are in the southern part of the State.

Questions.—Where is Old Town? What is its principal business? What is said of Skowhegan? For what is Eastport noted? Where is Bucksport? What special interests has Farmington? What is said of Boothbay? What are its leading interests? Describe Hallowell, Camden, Waldoboro', Kittery, Castine, Deer Isle, Houlton. For what is Bristol specially noted? York? Name other important towns. In what part of the State are most of the large towns of Maine situated?



Questions on the Map and Text.

Position and Surface.—Bound Maine. What rivers form part of the boundary? From what do they separate the State? Name the principal bays on the coast. What two large islands on the coast? Near what bays are they?

What do the mountains between Maine and the Province of Quebec form? Where do the rivers south of this range flow? North of it? Towards what river does the northern portion of the State slope?

What is the general slope of the State? What and where is the highest mountain in the State? Where is Mars Hill? Mount Bigelow? Saddleback? Mount Abraham? Haystack?

Rivers and Lakes.—Name five rivers flowing into the Atlantic. Which are the largest? Which are the most navigable? What rivers are the outlet of the following lakes: Grand and Schoodic? Chesuncook? Moosehead? Umbagog and Bangsely?

What are the principal branches of the St. John? Of the Penobscot? Of what value are the rivers to lumbering? Manufacturing? Commerce? What rivers supply abundant water-power?

Towns.—On what river is Augusta? What town on the same river north of Augusta? South of it? On what Bay is Portland? What two towns near the mouth of the Saco? On Kennebec River, near the mouth of the Androscoggin? What manufacturing towns on the Androscoggin? On what river is Bangor?

What three towns on Penobscot Bay? What town on the St. Croix? Most eastern town in the State? In the south-western corner? Where is Ellsworth? Cape Elizabeth? Brunswick? Camden? Waldoboro? Gorham? Farmington? Houlton? Boothbay? Machias? Which is the principal commercial town? Which is a great lumber market? Why are Canadian products shipped from Portland in winter? From what place are they exported in summer?

Counties.—What counties west of the Androscoggin border upon the Atlantic? Through what counties does the Androscoggin flow? Through what counties does the Kennebec flow? What counties on the coast between the Kennebec and Penobscot?

Through what counties does the Penobscot flow? What counties between the Penobscot and St. Croix? What counties border upon New Brunswick? Upon the Province of Quebec? What county embraces nearly all the northern slope?

Through what important towns would you pass in going, by railway, from Boston to Portland? From Portland to Rockland? From Portland to New Brunswick.

Miscellaneous Questions.

Load a vessel on the Kennebec for Philadelphia, of what would the cargo consist? What might the vessel bring back? What would a vessel take from Bangor to Havana? What might be the return cargo? What would a vessel carry from Rockland to New York? What is manufactured at Lewiston? Biddeford? Bath? Augusta? Auburn? Bangor? Rockland? Belfast? Saco? Ellsworth? Brunswick?

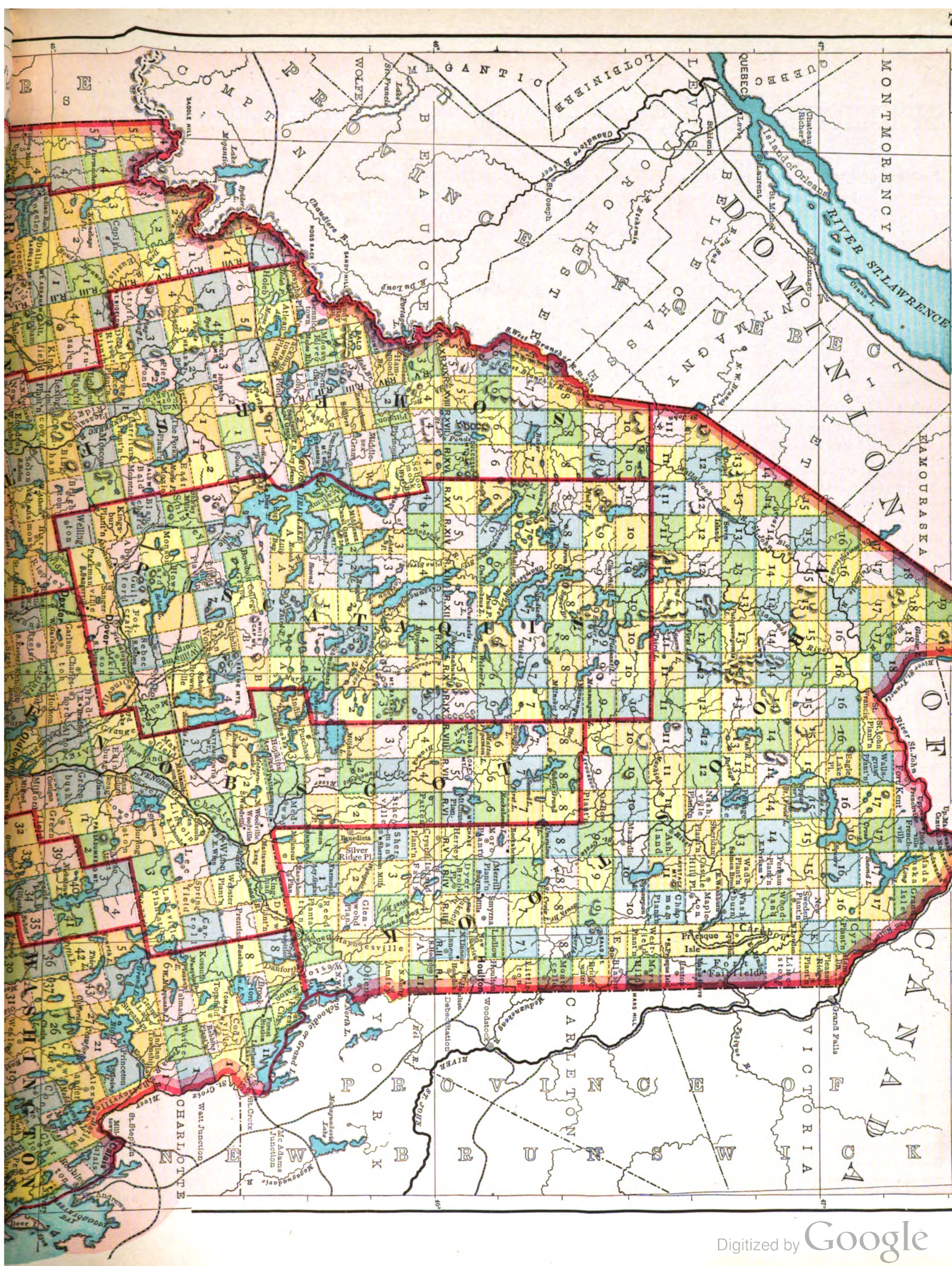
What is the principal business of Boothbay? What places are engaged in quarrying granite? What educational institution in Brunswick? Waterville? Lewiston? Farmington? Castine? Gorham?

How many degrees is it from the equator to the North Pole? What parallel is midway between these? What parallel crosses the centre of Maine? What States and Territories are crossed by the same parallel? What countries in Europe does this parallel cross? What cities are near this parallel in Minnesota? In Oregon? In Europe? Of what States and Territories does this parallel form the northern boundary? Is most of the population north or south of this parallel? Are the forests north or south of this line?

What meridian divides the State into two nearly equal parts? What countries of South America are crossed by the same meridian? What cities of Chili are near this meridian?

Which extends farthest east, Maine or South America? What States are smaller in area than Maine? What States are nearly of the same area? How many States of the area of Maine could be made from Missouri? Minnesota? Texas? California?

What Western State ranks with Maine in the production of lumber?



SPECIAL GEOGRAPHY OF NEW HAMPSHIRE.

1. Position and Area.—NEW HAMPSHIRE and Vermont together form a figure somewhat like a parallelogram, divided by the Connecticut River into two nearly equal parts.

New Hampshire has a land area of 9005 square miles—less than one-third that of Maine.

2. Coast and Islands.—The coast is a sandy beach, bordered with salt marshes, and is only about eighteen miles long. It has several inlets for small craft, but only one harbor—that of Portsmouth—for large vessels.

The *Isles of Shoals*—three of which belong to New Hampshire—are eight miles from the coast.

3. Surface.—The surface is mountainous or hilly, excepting a level strip along the coast twenty or thirty miles wide. There is a general slope of the land from north to south.

The great feature of the surface is a ridge of hills and mountains, which extends through the State in a direction nearly north, and separates the waters flowing into the Connecticut, on the west, from those of the Androscoggin, Saco, and Merrimac on the east.

The White Mountains are the highest part of this ridge. They consist of a group of 200 summits rising from a broad plateau.

4. The Plateau is from 1600 to 1800 feet high, is thirty miles long and forty-five broad. The **Peaks** are in two groups—the White Mountains proper in the east, and the Franconia range in the west—which are separated by a plateau from ten to fifteen miles wide.

Mount Washington is the crowning summit of the White Mountains; and, next to Mounts Mitchell and Clingman, in North Carolina, is the loftiest peak east of the Mississippi River. It is 6284 feet high.

A carriage road has been constructed to the top of Mount Washington on the east side, and a railway on the west.

5. The plateau is deeply furrowed by narrow valleys, which form the rocky channels of many streams:—the Androscoggin and its tributaries; the Saco and its branches; the Pemigewasset (one of the head-waters of the Merrimac), and the lower Ammonoosuck.

Some of these narrow waterways, called notches, are objects of special interest to the tourist. The most interesting natural features of this section are *The Flume*, in the Franconia Notch, *Echo Lake*, *The Basin*, *The Pool*, and the *Old Man of the Mountain*, a profile of a gigantic human face on the side of Profile Mountain, 1200 feet above the lake at its base.

The White Mountain Notch, through which the Saco passes, is more than 1900 feet high, and only twenty-two feet wide at its narrowest part.

Questions.—What is the form of New Hampshire and Vermont? What is the area of New Hampshire? What is the character of the coast? Describe the surface. The general slope. What separates the waters flowing into the Connecticut from those flowing into the Atlantic? What are the dimensions of the Plateau? What two groups of peaks rise from it? What is said of Mount Washington? What rivers rise in the Plateau? What objects of interest in the mountain region?

6. The grandeur and varied beauty of the White Mountains attract crowds of visitors from all parts of the Union. The mountains and forests, ravines, cascades and precipices, pools and falls have no rivals east of the Rocky Mountains.

In that part of the central ridge which extends southward from the White Mountains, the principal heights are Monadnock, Sunapee, Kearsarge, and Cardigan. Monadnock is the highest.

North of the White Mountains are Mts. Randolph, Pisgah, and Carmel; and near the southern border of the plateau are Whiteface Mountain, Chocorua Peak, Red Hill, and Kearsarge.

7. Rivers.—On the western side of the central ridge are the Connecticut River and its tributaries; on the eastern, the Androscoggin, Saco, Salmon Falls, Piscataqua, Merrimac, and their numerous branches.

Most of these streams are swift and shallow—useless for navigation, but valuable for manufacturing.

The *Merrimac* is the most important river in the State. The numerous falls supply immense water-power, the employment of which has created the cities of Manchester and Nashua, in New Hampshire, and Lowell and Lawrence, in Massachusetts.

The *Connecticut River* is wholly within the State of New Hampshire; and the western bank of the river forms the boundary of the State.

8. Lakes.—Among the many beautiful lakes of New Hampshire. Winnipiseogee

is the largest and best known. It is 25 miles long, from 1 to 10 miles broad, and contains 360 islands.

The other principal lakes are Sunapee, Ossipee, and Umbagog.

9. Soil.—The soil on the mountains is thin and gravelly, and the northern part of the State is chiefly woodland and pasture.

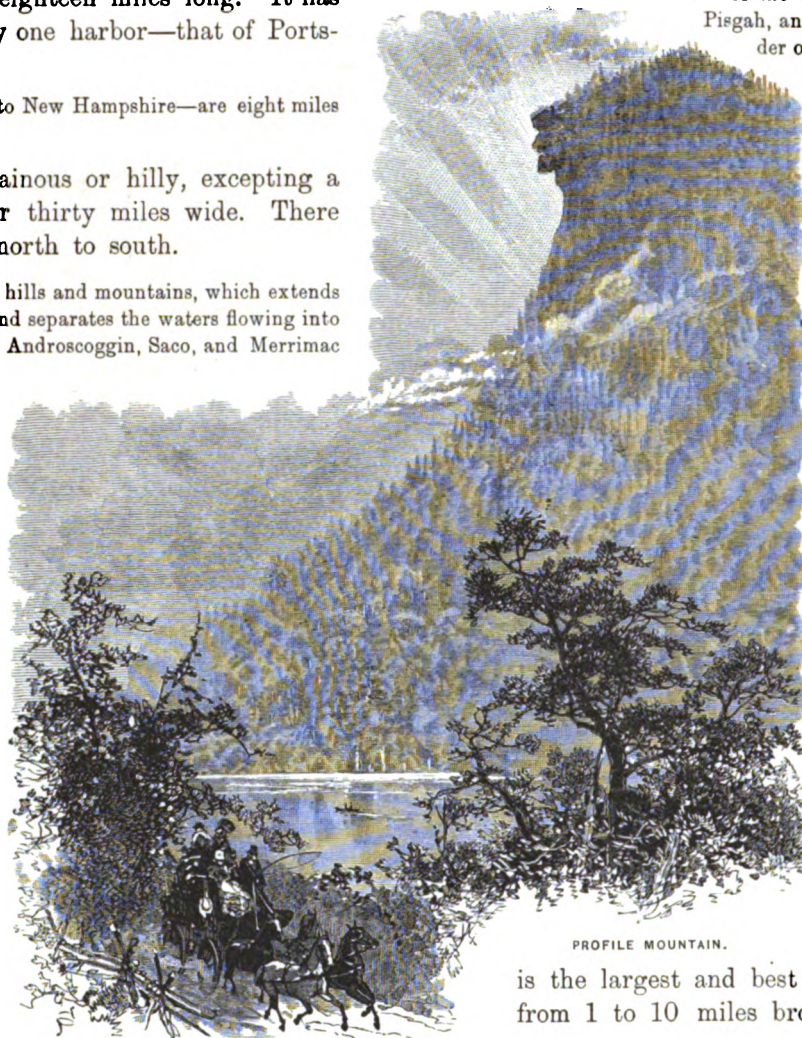
The best land is in the river valleys, some of which are subject to occasional overflow. The soil near the Connecticut River is the most fertile.

10. Climate.—The winters are even colder than those of Maine. The summers, though short, are sometimes very hot.

In the White Mountain region the cold of winter is terribly severe, and the higher summits are covered with snow for seven or eight months in the year.

The Merrimac Valley, below Concord, is the warmest part of the State, and all parts are very healthful.

Questions.—What is said of the scenery of the White Mountains? What mountains in the central ridge southward from the White Mountains? North of the White Mountains? Near the southern border of the Plateau? What rivers on the western side of the central ridge? On the eastern? Character of the streams? Most important river in the State? What cities are upon it? In what State is Connecticut River? Describe the largest lake. The soil. The climate.



PROFILE MOUNTAIN.

11. Animals.—Wolves and bears, though scarce, are still found in the northern part of the State; and the lakes and rivers are well stocked with fish.

12. Productions and Occupations.—*Manufacturing* is the most profitable industry. In this business New Hampshire takes a high rank among the States of the Union, and is especially noted for the amount of her textile (woven) fabrics.

13. Lumbering.—The forests of pine, hemlock, and spruce, of oak, beech, ash, and birch are an important source of wealth; and the cutting and rafting of the lumber to the saw-mills employ a great many men.

The sugar maple furnishes maple sugar, which is one of the minor products of the State.

14. Mining.—Granite is the principal mineral, and is quarried in many places. New Hampshire is called the "Granite State" from the abundance of this stone.

The light-colored *Granite* quarried in Concord is a valuable building-stone.

Soapstone is worked in many towns. The quarries at Franconia are the most valuable in the Union. *Mica* of excellent quality is found in Alstead and Grafton.

Beryls of enormous size are found at Grafton and Acworth. Gigantic specimens from these places are found in the collections of minerals throughout Europe.

Graphite is also profitably worked; and there are deposits of *lead, zinc, copper, gold, and silver*; but they are not of great importance. *Iron* of excellent quality is obtained from the Franconia and Bartlett mines.

15. Agriculture is not very profitable in New Hampshire; there is not enough grain raised for the wants of the people. Hay, oats, and Indian corn, orchard products, potatoes, and other vegetables are the staples.

16. Grazing is an important interest in the State, and furnishes for exportation live-stock, milk, butter, cheese, and wool.

17. Commerce.—The commerce is almost wholly domestic: the exports being sent (chiefly by railway) to other States, and the foreign goods imported mainly through Boston.

Portsmouth has considerable coasting-trade, and New Hampshire has ample railway connection with Canada, and with all parts of the Union.

18. History.—The first settlements were made at Portsmouth and Dover, in 1623; but the colony grew very slowly for many years. The settlers were subject to attacks by the Indians, until the British took possession of Canada.

New Hampshire was twice united to Massachusetts, but it finally became, in 1741, a separate province, under a British governor, and remained so until the Revolutionary War, forming one of the thirteen original States.

The province was named for Hampshire, an English county, from which some of the early settlers came.

The people took an active part in the war for independence. The men of New Hampshire were engaged in every battle, from Bunker's Hill to the surrender of Cornwallis. Again in 1812, and in the Civil War of 1861, the State was among the first and most steadfast in upholding the honor of the country with men and money.

Questions.—What animals are found in the State? What is the most profitable industry? Noted for what class of products? Value of the forests? What tree is especially valuable? Why is New Hampshire called the "Granite State"? Where are valuable quarries of soapstone? Of mica? Beryls? Iron? What is said of agriculture? Principal products? What is said of grazing? Through what city are foreign goods imported?



VIEW OF LAKE WINNIPESGEE.

19. Government.—The *Executive* officers are a Governor and Council of Five, elected biennially by the people; and a Secretary of State, and Treasurer, who are chosen by the Legislature.

The *Legislature*, styled the General Court, is elected biennially by the people, and consists of a Senate of 24 members, and a House of Representatives of about 320 members.

The *Judicial* powers are vested in a Supreme Court—consisting of a Chief and six associate justices—and a Probate Court in each county. All the judges are appointed by the Governor and Council.

The State has two Senators and two Representatives in the Congress of the United States, and has four electoral votes.

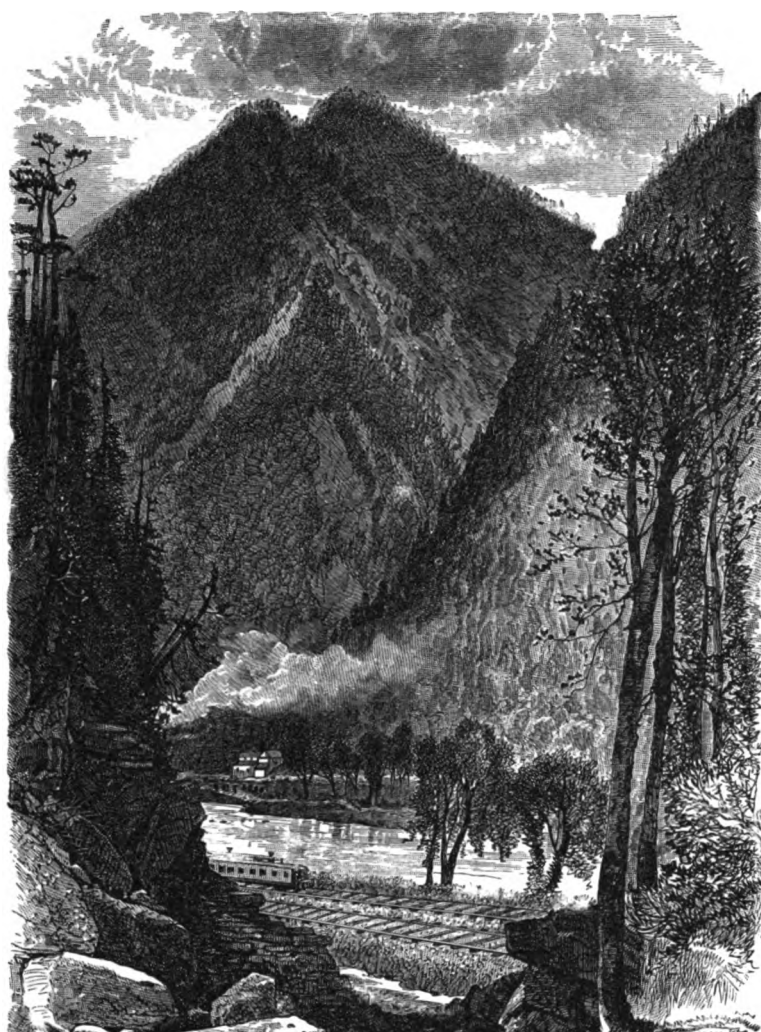
20. Education.—The schools are maintained almost entirely by the separate towns or districts, but the State makes a small appropriation each year from the tax on banks. The law requires that all children between eight and fourteen years old shall attend school at least twelve weeks in the year.

Each town or district has the control of its own schools. A State Superintendent of Instruction is appointed for two years by the Governor. Besides the common schools, there are many High Schools, a Normal School at Plymouth, and an Agricultural College at Dartmouth.

The most important literary institution in the State is *Dartmouth College*, at Hanover, chartered in 1769. In 1878, the college had, in its various departments, 386 students taught by 32 professors. Connected with the college are the *State Agricultural College*, the *Chandler Scientific School*, the *Thayer School of Engineering*, and the *New Hampshire Medical College*.

Among the secondary schools of note, besides the public High Schools, are *Phillips Academy*, Exeter; *St. Paul's School*, Concord; *Kimball Union Academy*, Meriden; *Literary and Biblical Institute*, New Hampton; *Colby Academy*, New London; *Tilden Female Seminary*, West Lebanon; *New Hampshire Conference Seminary*, Tilton; *Robinson Female Seminary*, Exeter; *Appleton Academy*, New Ipswich; *Adams Female Academy*, East Derry; *Colebrook Academy*, *Pembroke Academy*, *Stevens High School*, at Claremont, and many others.

Questions.—Where were the first settlements made? To what hardships were the settlers exposed? When did New Hampshire become a separate province? From what was New Hampshire named? What are the executive officers? How often is the Legislature chosen? How many Senators and Representatives? In what are the judicial powers vested? What is the law requiring attendance at school? What is the most important educational institution in the State?



MOUNTAIN SCENERY.

21. Towns. — The larger towns are actively engaged in manufacturing, and are situated in the southern part of the State.

Manchester is the largest and wealthiest city in the State, and one of the principal manufacturing towns of New England. It is situated on both banks of the Merrimac.

The vast water-power supplied by the Amoskeag Falls is employed in the manufacture of cotton and woollen fabrics, boots and shoes, hosiery, edge-tools, machinery, locomotives, and steam fire-engines. Manchester is the fourth city in the Union in the value of cotton and woollen manufactures.

22. Concord, the capital, lies upon both sides of the Merrimac, at the junction of four railroads, and is the centre of a large trade with the surrounding country.

It is especially noted for the manufacture of carriages and wagons; also for cotton, woollen, and leather goods, foundry products, dressed granite, furniture, etc. The well-known Concord granite is quarried within the limits of the city.

23. Dover is situated at the Falls of the Cocheco River, two miles from the Piscataqua, and fifteen from the sea. Vessels of light draught ascend the river to the falls.

The Cocheco has here a descent of thirty-two feet, which furnishes the power for the factories. Cotton and woollen goods, boots and shoes, carriages, and lumber are the leading manufactures.

Dover is the oldest town in the State. It was attacked by Indians, at night, in 1689, and many of the people were killed or carried into captivity.

Questions. — What is the business of the larger towns? In what part of the State are they? What is said of Manchester? What falls supply water-power? How does Manchester rank as a manufacturing city? What is Concord noted for? Where is Dover situated? What are its manufactures? What disaster did it suffer in 1689? Where is Nashua situated? What are its manufactures? Describe Portsmouth. What is said of the river there? The harbor? The manufactures?

24. Nashua is situated upon the Nashua River, near its union with the Merrimac. The prosperity of the city is due to its manufactures, and to its situation at the junction of six railways.

The falls in the Nashua River supply the water-power for the factories, which include cotton, woollen, and iron mills, and works for sawing soapstone.

25. Portsmouth is three miles from the sea, upon a beautiful peninsula formed by the Piscataqua. The river here is of great depth, and runs so swiftly that it has never been known to freeze. Thus the harbor, protected by headlands, is one of the best in the Union.

Railroads connect with Boston, Portland, and the principal places in the State. The people are engaged in the manufacture of cotton and woollen goods, ale and beer, boots and shoes, and carry on an active coasting trade.

Portsmouth is a quaint and quiet old town, with pleasant drives and fine beaches in the neighborhood, and is a very agreeable summer resort. It was first called Strawberry Bank, and was the residence of the royal governor. Some of the stately dwellings of colonial days may still be seen in that part of the State. Portsmouth Navy-Yard is opposite to the city, but is in the town of Kittery, Maine.

26. Keene is on the Ashuelot River, at the junction of several railways. It lies in the midst of a rich and extensive farming region, of which it is the centre of trade.

Keene has many woollen-mills, machine-shops, tanneries, carriage factories, etc.

27. Somersworth, on Salmon Falls River, manufactures a variety of goods. **Great Falls**, the principal village, contains large manufactories of cotton and woollen goods.

28. Rochester, on Cochecho River, at the junction of several railroads, has ample water-power, and manufactures woollen goods, boots and shoes, leather, and lumber.

29. Claremont, on Sugar River, three miles from the Connecticut, is noted for its beauty of scenery. It has extensive water-power and important manufactures.

30. Laconia, on Winnipiseogee River, has a large trade with the surrounding country, and manufactures cotton and woollen goods, hosiery, and cars.

31. Exeter, on the Squamscot River and Boston and Maine Railroad, is in a rich agricultural region, and manufactures cotton goods, lumber, carriages, and potters' ware. The well-known Phillips Academy is situated here.

32. Lebanon is on Mascoma River, near the Connecticut. The river within the town falls 400 feet, furnishing water-power for the manufacture of machinery, edge-tools, furniture, musical instruments, water-wheels, and mill-work.

33. Gilford, on Lake Winnipiseogee, is noted for the beauty of its surrounding scenery. It has various manufactures, and is a popular resort for summer boarders.

34. Littleton commands a fine view of the White Mountains. Within the township, which extends several miles along the Connecticut, is a descent known as the "Fifteen-Mile Falls," affording abundant water-power. It manufactures lumber, starch, gloves, mittens, scythes, axes, and flannels.

35. Franklin, formerly a part of Salisbury, is the birthplace of Daniel Webster. It contains the State Orphan's Home, which is on the site of the Webster homestead.

36. Plymouth is noted for the manufacture of buckskin gloves. Eleven firms are engaged in the business. It is also a popular summer resort.

37. Among the other principal towns are *Hinsdale*, *Milford*, *Pembroke*, *Colebrook*, *Farmington*, *Peterborough*. *Lancaster* is the shire-town of Coos County, *Haverhill* and *Plymouth* of Grafton County, *Ossipee* of Carroll County, *Newport* of Sullivan County, and *Amherst* of Hillsborough County.

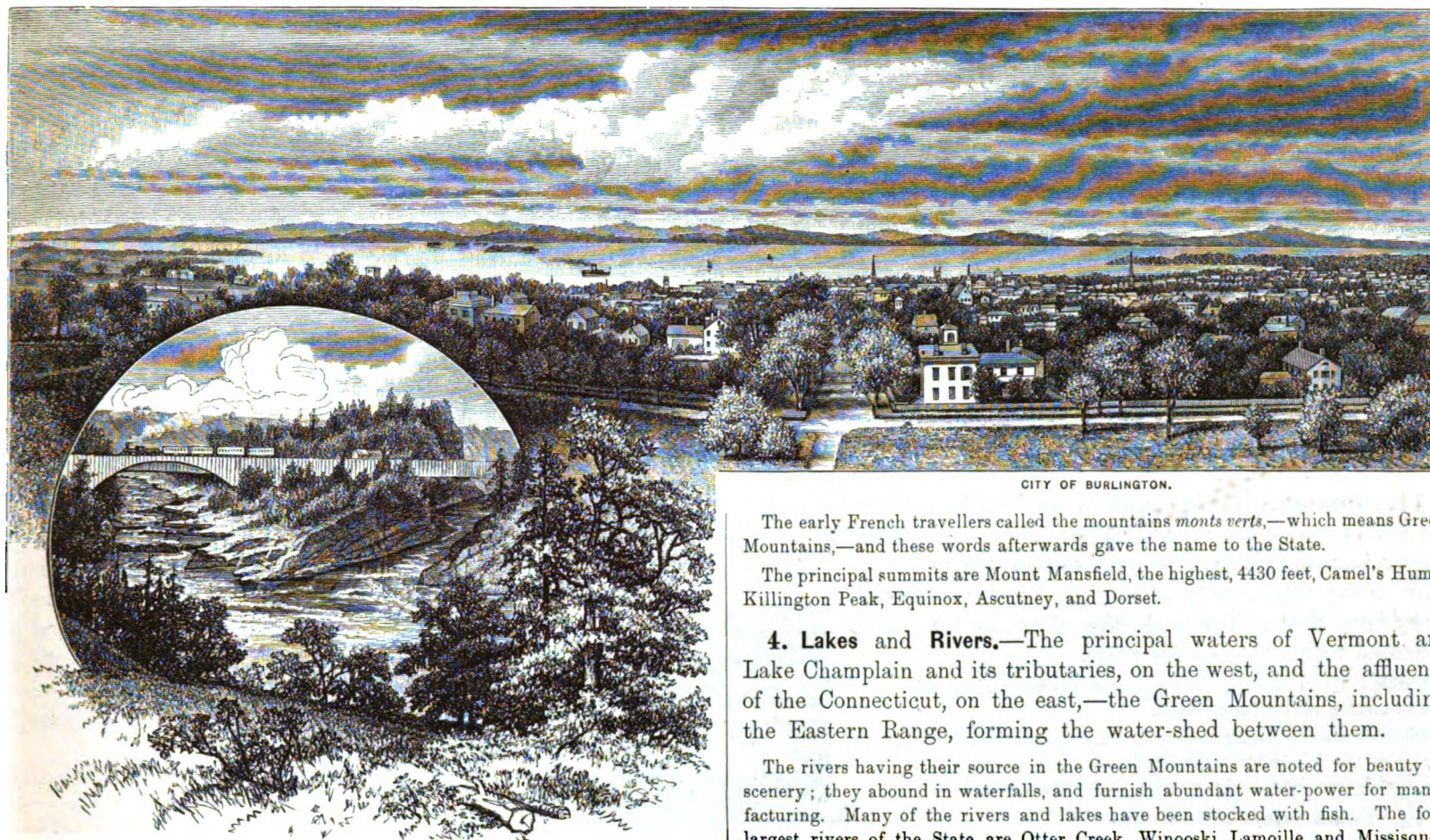
38. The towns and villages in the White Mountain region, and other picturesque parts of the State, attract throngs of tourists and summer boarders.

The best known of these places are *Wolfeboro*, *Gilford*, *Alton Bay*, and *Centre Harbor*, on Lake Winnipiseogee; *Plymouth*, *Sandwich*, and *Campton*, south of the mountain region; *Littleton*, *Bethlehem*, *Jefferson*, *Gorham*, and *Lancaster*, north and west of it, and *North Conway* east of it.

Rye Beach and the *Isles of Shoals* are much visited in summer.

Questions. — What is said of Keene? What is the principal village of Somersworth? What is said of Rochester? For what is Claremont noted? What is the business of Laconia? What famous preparatory school at Exeter? What are the manufactures of Lebanon? What is said of Gilford? Littleton? Franklin? Plymouth? Name other principal towns. What is said of the towns of the White Mountain region? Which are the best known? Name two popular seaside resorts?

SPECIAL GEOGRAPHY OF VERMONT.



CITY OF BURLINGTON.

DEEP GORGE, WINOOSKI RIVER.

1. Position and Area.—VERMONT contains 9565 square miles, of which 430 square miles is water surface. It is the only inland State in New England. The west bank of the Connecticut River is the boundary-line between Vermont and New Hampshire, and the channel of Lake Champlain so far as that body of water extends is the boundary-line between Vermont and New York.

2. The Surface is greatly diversified by hills and valleys, elevated plateaus, and mountains of considerable height. The Green Mountains traverse the whole length of the State from south to north.

The Green Mountains form the water-shed of Vermont from the southern border to a point just south-west of the centre of the State.

From that point the water-shed is formed by ranges of hills which follow an irregular course towards the north-east, and at the northern border are found quite near the Connecticut River.

These ranges of hills constitute what has often been called the Eastern Range of the Green Mountains. They are less high and rugged than the Green Mountains proper.

The Green Mountain Range (that is, the Western Range) is three times broken through; by the Winooski and Lamoille Rivers in Vermont, and by the Missisquoi in Canada.

3. The Green Mountains have rounded summits, and are clothed to the very top with evergreen forests or rich green grass,—presenting a striking contrast to the bare and jagged peaks of the White Mountains.

Questions.—What is the area of Vermont, exclusive of its water surface? How does it compare in size with New Hampshire? What States are smaller than Vermont? What is said of the surface? What mountains traverse the whole length of the State? What forms the principal water-shed of the State? Describe the water-shed from the centre of the State northward. What constitutes the East Range of the Green Mountains? What rivers pass through the Green Mountain range?

The early French travellers called the mountains *monts verts*,—which means Green Mountains,—and these words afterwards gave the name to the State.

The principal summits are Mount Mansfield, the highest, 4430 feet, Camel's Hump, Killington Peak, Equinox, Ascotney, and Dorset.

4. Lakes and Rivers.—The principal waters of Vermont are Lake Champlain and its tributaries, on the west, and the affluents of the Connecticut, on the east,—the Green Mountains, including the Eastern Range, forming the water-shed between them.

The rivers having their source in the Green Mountains are noted for beauty of scenery; they abound in waterfalls, and furnish abundant water-power for manufacturing. Many of the rivers and lakes have been stocked with fish. The four largest rivers of the State are Otter Creek, Winooski, Lamoille, and Missisquoi. They all flow into Lake Champlain and are about equal in size.

Lake Memphremagog and its tributaries flow into the St. Lawrence, and a few small affluents of the Hudson are in the south-western part of the State.

Lake Champlain is the most important of these inland waters. It is 120 miles long, with an average width of about $4\frac{1}{2}$ miles. Two-thirds of the lake, with several islands, are within the boundary of Vermont. The lake flows into the St. Lawrence River, and is the highway for commerce with Canada.

There are, besides, many smaller lakes,—Willoughby, Bomoseen, Dunmore, Maidstone, Caspian, and others; and Memphremagog, which lies partly in Canada.

5. Soil.—The soil in the valleys and on the hill-sides is very productive. The uplands are sometimes cultivated to the height of 2500 feet.

The slopes of the hills and mountains afford excellent pasturage, and a large proportion of the State is better adapted to grazing than to tillage.

6. Climate.—The climate resembles that of New Hampshire. The winters, though very cold, are not subject to great changes of temperature, and the snow lies on the ground for five months. The summers are generally pleasant, with a few days of intense heat.

The mercury sometimes rises above 100° in summer, and is occasionally frozen in winter, which indicates a temperature of at least forty degrees below zero.

7. Animals.—The wild animals that are yet found in the forests are the panther, black bear, wolf, and deer. These are, however, few in number and mostly confined to the north-eastern part

Questions.—In what respect do the Green Mountains differ from the White Mountains? From what is the name of the Green Mountains derived? Which are the highest mountains in the State? What are the principal waters of Vermont? Describe the rivers, and name the four largest. Into what does Lake Memphremagog flow? What is said of Lake Champlain? Of the soil? Where is excellent pasturage found? Describe the climate. The animals.

of the State. The small animals common to the North Atlantic States, abound.

8. Productions and Occupations.—Farming and Manufacturing are the leading industries. The minor productions are lumber, minerals, (especially marble and granite,) and maple-sugar.

In the production of maple-sugar, Vermont surpasses every other State.

9. Farming.—The grazing products include horses, swine, cattle, and sheep; butter and cheese. The horses and sheep of Vermont are among the best in the country; and the State is celebrated for the excellence of its butter and cheese.

The agricultural staples are hay, potatoes, oats, Indian corn, and orchard products. The value of the hay crop is two-thirds that of all the agricultural productions.

10. Manufactures.—The manufactures in 1880 were nearly equal in value to the farming products. Vermont, however, is less engaged in manufacturing than any other New England State.

The principal articles are flouring and grist-mill products, woollen goods, sawed and planed lumber, scales and balances, leather, carriages, and sleighs.

11. Minerals.—The quarries of marble, slate, soapstone, granite, and limestone are very valuable; there are mines of iron and copper in many places. Mineral springs are numerous. In quantity and variety of marble, Vermont surpasses every other State. The production of granite has greatly increased within the last few years.

Marble is found in every county west of the mountains, and is quarried in large quantities at Rutland.

The fine white statuary marble is equal to the best Italian. The marble of Isle La Motte, when polished, is black as jet; and there are beautiful brown, blue, and mottled varieties in several places.

12. Lumbering.—There are forests of hemlock, fir, and spruce upon the mountains; pine, oak, beech, sugar-maple, birch, and other trees upon the lower lands, and cedar in the swamps; these forests furnish the lumber for the saw-mills.

13. Commerce with the other States is carried on by Lake Champlain and the Hudson River, and by many railroads; and with Canada by railway and by Lake Champlain, which flows into the St. Lawrence through Richelieu River.

14. Government.—The *Laws* are made by the General Assembly (as the Legislature is called), which consists of a Senate of 30 members, chosen from the counties, and a House of Representatives numbering 243, one from each town.

The Legislature is elected biennially by the people, and meets once in two years.

The *Judiciary* comprises the Supreme Court, County, Probate, and Justice Courts. The Supreme Court consists of a Chief Justice and six Associate Justices, elected for two years by the General Assembly; the County Courts are presided over by one Judge of the Supreme Court and two Assistant Judges, the latter elected by the counties; the Probate Court consists of a Judge of Probate for each district, who is elected by the people of the same; and the Justice Courts are held by Justices of the Peace elected by the several towns.

Questions.—Name the leading industries and minor productions. For what grazing products is Vermont noted? What are the agricultural products? What is said of the manufactures? What are the principal articles? What quarries has the State? Where is marble found and quarried? What is the quality of the statuary marble? What trees are found in the forests? How is commerce carried on? Of what does the General Assembly consist? How often is the Legislature elected?

The principal *Executive Officers* are the Governor, Lieutenant-Governor, Treasurer, Secretary of State, and Auditor of Accounts, who are elected for two years by the people.

15. Education.—Each town supports its own schools—there being no general fund for that purpose. The State maintains Normal Schools at Randolph, Castleton, and Johnson.

The common schools are free to all between five and twenty years of age; each town must maintain one or more free schools for at least twenty-four weeks, and the law requires that all between the ages of eight and fourteen shall attend at least twenty weeks each year.

These schools are under the general care of the State Superintendent of Education and the County Supervisors. The State Superintendent of Education is elected biennially by the Legislature; the County Supervisors are elected biennially, one in each county, by county boards of education; the latter consists of a member of each town of the county, chosen annually at the March meetings.

For higher and secondary education the principal institutions are the *University of Vermont* and *State Agricultural College*, at Burlington; *Middlebury College*, at Middlebury; *Norwich University*, at Northfield; *Vermont Episcopal Institute*, at Burlington; *Vermont Conference Seminary* and *Female College*, at Montpelier; *Green Mountain Seminary*, Waterbury Centre; *Goddard Seminary*, Barre; *St. Johnsbury Academy*, at St. Johnsbury; *Vermont Academy*, at Saxton's River; *Burr and Burton Seminary*, at Manchester; and *Troy Conference Seminary*, at Poultney.

16. History.—Settlement.—Vermont was visited in 1609 by Champlain, a French officer, after whom the lake was named. The first white settlement was made in 1724 by the erection of Fort Dummer, where the present town of Brattleborough stands.

During the French and Indian war of 1745, the troops which were sent against the French from this fort and from New Hampshire, noticed the fertility of the soil along the upper Connecticut, and about the year 1760 immigrants began to arrive in large numbers.

Governor Wentworth, of New Hampshire, at that time claimed the territory, and granted townships to the settlers; so that the country west of the Connecticut was known by the name of the "New Hampshire Grants."

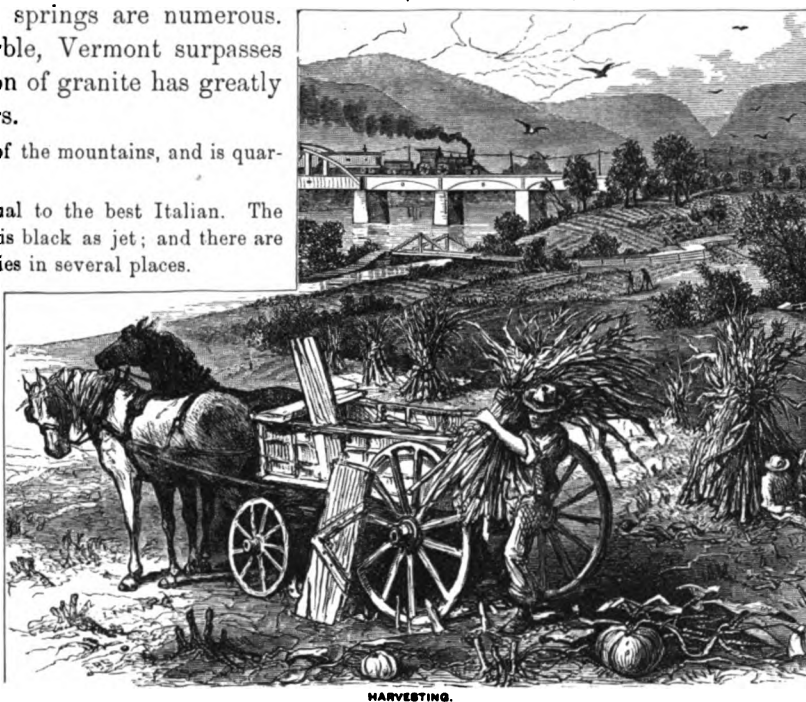
17. Dispute with New York.—But in 1763 the Governor of New York claimed the territory; and, as the English king supported his pretensions, Governor Wentworth was obliged to yield.

The New York government then tried to drive the settlers from their lands; but under the leadership of Ethan Allen, Seth Warner, and other fearless men, they made a bold and successful resistance.

Every officer who tried to enforce the writ of ejectment was stripped, tied to a tree, and whipped with beechen rods; until none could be found to attempt the task. Thus the Green Mountain boys defended themselves until the outbreak of the Revolution suspended the struggle.

18. Revolutionary War.—In 1776, the people petitioned Congress for admission into the Confederacy; but, owing to the opposition of New York, this was refused.

Questions.—Who are the principal executive officers? What are the courts of the State? How are the judges elected? How are the schools supported? What is the law requiring attendance at school? When and where was the first settlement made? By what name was this section first known? Who claimed the territory? What resistance was offered to New York? How was the dispute with New York settled? Character of the soldiers of Vermont in the Revolutionary war?



The dispute was settled in 1790 by the payment to New York of \$30,000, and in 1791 the colony became the first State added to the original thirteen.

The people of Vermont entered heartily into the War of Independence, and were among the most resolute and daring in defence of the common cause. They distinguished themselves, by their obstinate courage, in some of the most desperate battles of the war, and were known as the Green Mountain Boys.

19. Later Wars.—In the war of 1812, the Vermonters maintained their former renown by their conduct at the battle of Plattsburg and the naval engagement on Lake Champlain. Again, in the great Civil War, the patriotism and valor of the people were worthy of the Green Mountain Boys of old. In this war Vermont sent forth 33,288 soldiers, a number exceeding her quota. The deaths among these troops in action exceeded those of any other State except Michigan, in proportion to the number furnished.

20. Towns.—Vermont contains two cities (Burlington and Vergennes), 241 towns, and three unorganized townships.

21. Burlington, on Lake Champlain, is hardly surpassed, for beauty of scenery, by any town in New England. It is situated on rising ground, and commands a delightful view of the lake and of the Adirondack Mountains in New York. It is the seat of the University of Vermont and State Agricultural College. The medical college connected with the University is among the best in the United States. The college was chartered in 1791.

It is the most populous town in the State, and has the best harbor on the lake. Communication with Canada and all parts of the Union is made by Lake Champlain and several railways.

Burlington has many manufacturing establishments, and in the lumber trade ranks fourth in the country. It is the chief commercial town in Vermont.

22. Rutland is situated on Otter Creek, at the junction of several railways. It ranks next to Burlington in population.

The marble quarries are the most extensive and valuable in the State. The variegated marbles are very beautiful, and the statuary marble is of the best quality. The extensive manufactory of the Howe Scale Company is located here.

23. St. Albans, on the Vermont and Canada Railroad, is the centre of an important trade in butter and cheese.

The extensive car-shops of the Central Vermont Railroad are located here; also many manufacturing establishments, including one for the construction of iron bridges. It is an important port of entry for the exchange of goods with Canada.

24. Bennington was the scene of the famous battle of Bennington, in 1777, which was one of the causes of Burgoyne's surrender. A monument 301 feet in height commemorates this event. It is the largest manufacturing town in the State.

Fine porcelain and Parian ware are made from clay found in the neighborhood. The State Soldiers' Home is located here.

25. Brattleboro was settled in 1724, and is the oldest town and one of the most beautiful places in the State. It contains an extensive manufactory of organs and the State Insane Asylum.

26. St. Johnsbury is situated on the Passumpsic River, at the junction of two railroads.

The principal industry is the manufacture of the Fairbanks Standard Scales, the establishment being the largest of the kind in the world.

27. Montpelier, the capital of the State, is a beautiful and wealthy town on the Winooski River. The capitol is a fine build-

ing constructed of Barre granite. The new Federal building contains the United States Court and Post Office.

28. Barre, six miles from Montpelier, is the great centre of the granite industry of the State. The development of these quarries has caused the town to increase in population more rapidly than any other town in the State.

29. Vergennes, at the head of navigation on Otter Creek, was incorporated in 1788; only two cities in New England are older. Besides many manufacturing establishments, the State Reform School is located here.

30. Bellows Falls, in the town of Rockingham, is noted for its magnificent water-power; only one town in the United States manufactures more paper. The population is increasing rapidly, and it is a popular summer resort.

31. Colchester is on the Vermont and Canada Railroad. *Winooski Falls*, the principal village, has abundant water-power, and contains extensive quarries of limestone. Lumber and cheese are the leading interests.

32. Brandon, on the Rutland and Burlington Railroad, manufactures mineral paint, and is noted for its statuary marble.

33. Northfield, on the Central Vermont Railroad, contains extensive slate quarries.

34. Castleton, on the Rutland and Whitehall Railroad, is noted for its slate quarries, and for the manufacture of slate-pencils.

35. Springfield, on the Black River, a branch of the Connecticut, is noted for the manufacture of children's dolls, wheel-barrows, carriages, etc.

36. Woodstock is a pleasant town on a branch of the Connecticut. It has a good High School and a fine park—evidences of a cultivated people.

37. Swanton, on the Missisquoi River, is noted for its quarries of variegated marble; there are many varieties of the stone, and it is here manufactured into tiles, slabs, hearths, and ornamental work. In richness and beauty it has few competitors. Nearly all the floor tiling of the country is manufactured in this town. Swanton also contains establishments for the production of small wares, such as suspenders, buckles, etc.

38. Poultney is the centre of the Vermont slate business. It also manufactures lumber, dairy and agricultural implements, and cheese.

39. Randolph is the most important town in Orange County. It manufactures lumber, carriages, sleighs, and leather.

40. Waterbury, on the Winooski River, manufactures lumber, leather, clothes-washers and wringers. A New State Insane Asylum is located here.

41. Stowe is one of the most fashionable resorts in the State. Among the attractions of this delightful region are Mount Mansfield, Sterlin's Mountain, Camel's Hump, and Bolton Falls.

42. Danville, between the Passumpsic and Lamoille Valleys, *Newport*, on Lake Memphremagog, and *Manchester*, near Mount Equinox, are popular summer resorts.

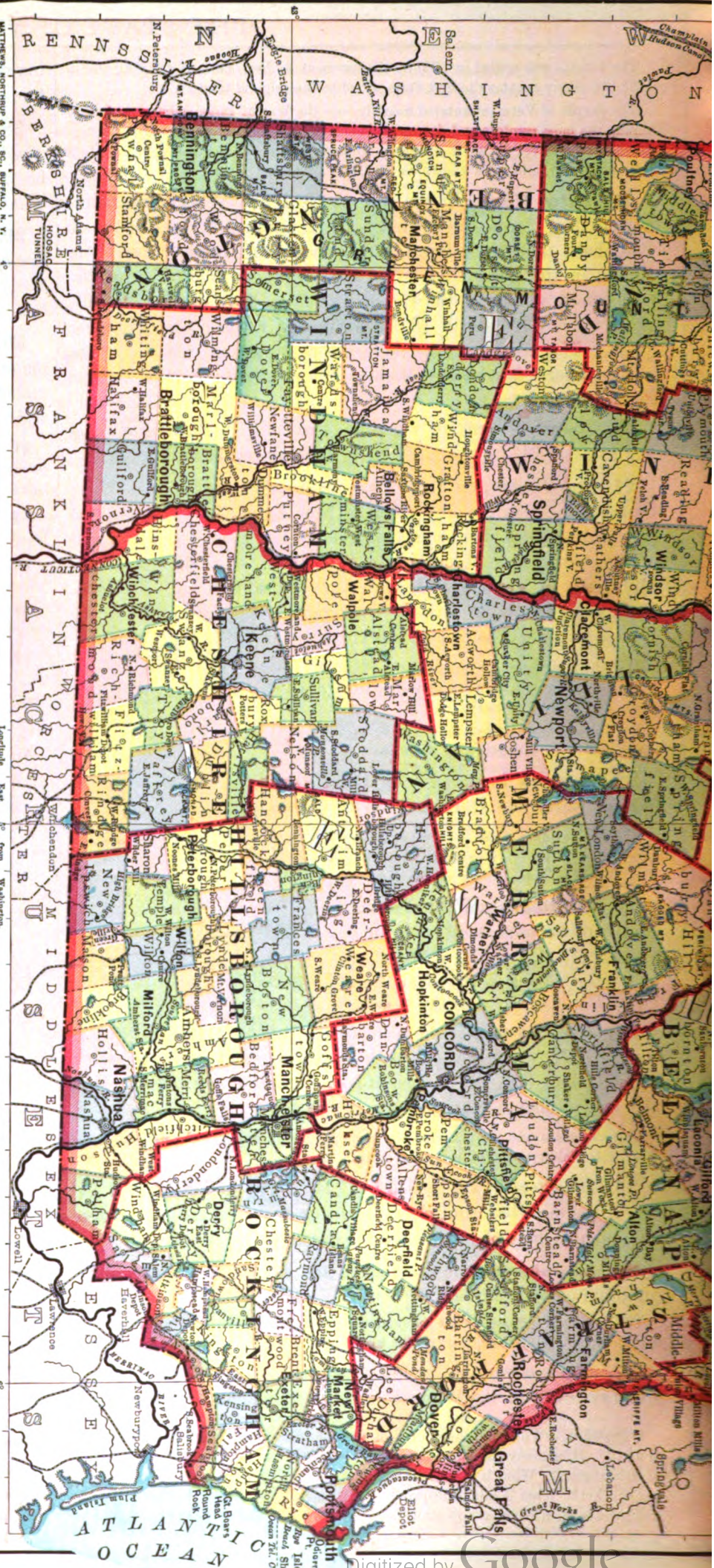
43. Among the other principal towns are *Hartford*—which includes *White River Junction*, an important railroad centre; *Morrisville*, the chief town of Lamoille County, and noted for its manufactures of leather; *Enosburg*, celebrated for its extensive sale of patent medicine; *Fairhaven*, *Fairfield*, *Dorset*, *Milton*, *Chester*, *Derby*, etc. The chief manufactures of these towns are lumber, carriages, sleighs, wooden goods, slate, and marble.

44. In the north-west corner of the State is the "Springs Region," remarkable for its medicinal springs, many of which have become noted for the virtue of their waters. The best known of these are in the towns of *Highgate*, *Sheldon*, and *Alburg*, which give their names to the springs.

45. More than half of the principal towns of Vermont are in the northern half of the State; while in New Hampshire all the important places are in the southern half. This is owing partly to the soil and partly to the climate.

Questions.—Where did the soldiers of Vermont distinguish themselves in the war of 1812? How many cities and towns has Vermont? What is said of the situation of Burlington? What is said of its size and harbor? How does it rank as a lumber market? What is said of Rutland? Of its marble quarries? For what grazing products is St. Albans an important market? What extensive works are there?

Questions.—Of what historic event was Bennington the scene? What is said of Brattleboro? St. Johnsbury? Montpelier? Barre? Vergennes? Bellows Falls? Colchester? Brandon? Northfield? Castleton? Springfield? Woodstock? Swanton? Poultney? Randolph? Waterbury? Stowe? Danville? Describe the "Springs Region." Name the best known mineral springs.



Questions on New Hampshire.

Position and Surface.—Bound New Hampshire. What two rivers form part of the boundary between New Hampshire and Maine? What river forms the entire western boundary? What extent of sea-coast has New Hampshire? Into what two groups are the White Mountains divided? To which group (the White Mountains proper, or the Franconia Range) do the following peaks belong? Washington, Adams, Madison, Monroe, Jefferson, Lafayette, Profile Mountain. What peaks in the southern portion of the White Mountain region? What mountains between the Merrimac and the Connecticut?

Rivers and Lakes.—What rivers flow from the White Mountain region through Maine into the Atlantic Ocean? What two unite to form the Merrimac? What branches does the Merrimac receive from the east? What is the source of the Connecticut River? To what river is Lake Winnepesaukee tributary?

What are the branches of the Connecticut in the mountain region? South of the mountains? What river is the outlet of Sunapee Lake? To what is Ossipee Lake tributary? Squam Lake? Umbagog Lake? In what general direction do the rivers flow? Why?

Counties.—What county forms the northern portion of the State? What counties border upon the Connecticut River? Upon Maine? Upon Massachusetts? What two counties in the interior?

Commit to memory the counties in the following order, looking upon the map: Coos, Grafton, Carroll, Sullivan, Merrimac, Belknap, Strafford, Cheshire, Hillsborough, Rockingham.

Questions on Vermont.

Position and Surface.—Bound Vermont. What river forms the boundary on the east? What lake forms part of the western boundary? What parallel forms the northern boundary?

What mountains traverse the entire length of the State? What is the highest mountain in the State? What peak near the northern boundary? What peak south of Mount Mansfield? Where is Mount Ascutney? Killington Peak? Name the principal slopes of the State.

Rivers and Lakes.—Name the branches of the Connecticut, beginning at the north. Which is the principal northern one? Southern one? Middle one? Name four rivers that flow into Lake Champlain. Which pass through the Green Mountains? What river flows northerly?

In which direction do the waters of Lake Champlain flow? What river is the outlet, and into what does it flow? To what system do the rivers flowing into Lake Champlain belong? What lakes in the northern part of the State? What island in Lake Champlain?

Counties.—Commit to memory the counties in the following order: Grand Isle, Franklin, Orleans, Essex, Chittenden, Lamoille, Caledonia, Addison, Washington, Orange, Rutland, Windsor, Bennington, Windham. What counties lie west of the Green Mts.? Which is the most central county? Which county is in Lake Champlain?

Through what towns, west of the mountains, would you pass in going by railway from Massachusetts to Canada? On which side of the Green Mountains are the larger towns?

Questions on New Hampshire and Vermont.

In which State is manufacturing the leading interest? In which farming? In which is granite the most important mineral? In which are important marble quarries?

Which State has the highest mountains? The most rugged surface? In which State is the Connecticut River? Which State has the largest towns? Why? In which part of the State of New Hampshire are the largest towns?

In which part of Vermont, northern or southern, are Burlington, St. Johnsbury, St. Albans? Are there any large towns in northern New Hampshire? What is the chief export of Burlington? Rutland? St. Albans? St. Johnsbury? Brandon? Poultney?

Describe the location of the following towns in New Hampshire:

Manchester,	Kennebec,	Exeter,	Bethlehem,
Concord,	Somersworth,	Lebanon,	Gorham,
Nashua,	Rochester,	Wolboro,	No. Conway,
Dover,	Clarendon,	Littleton,	Peterborough,
Portsmouth,	Laconia,	Plymouth,	Lancaster,

Describe the location of the following towns in Vermont:

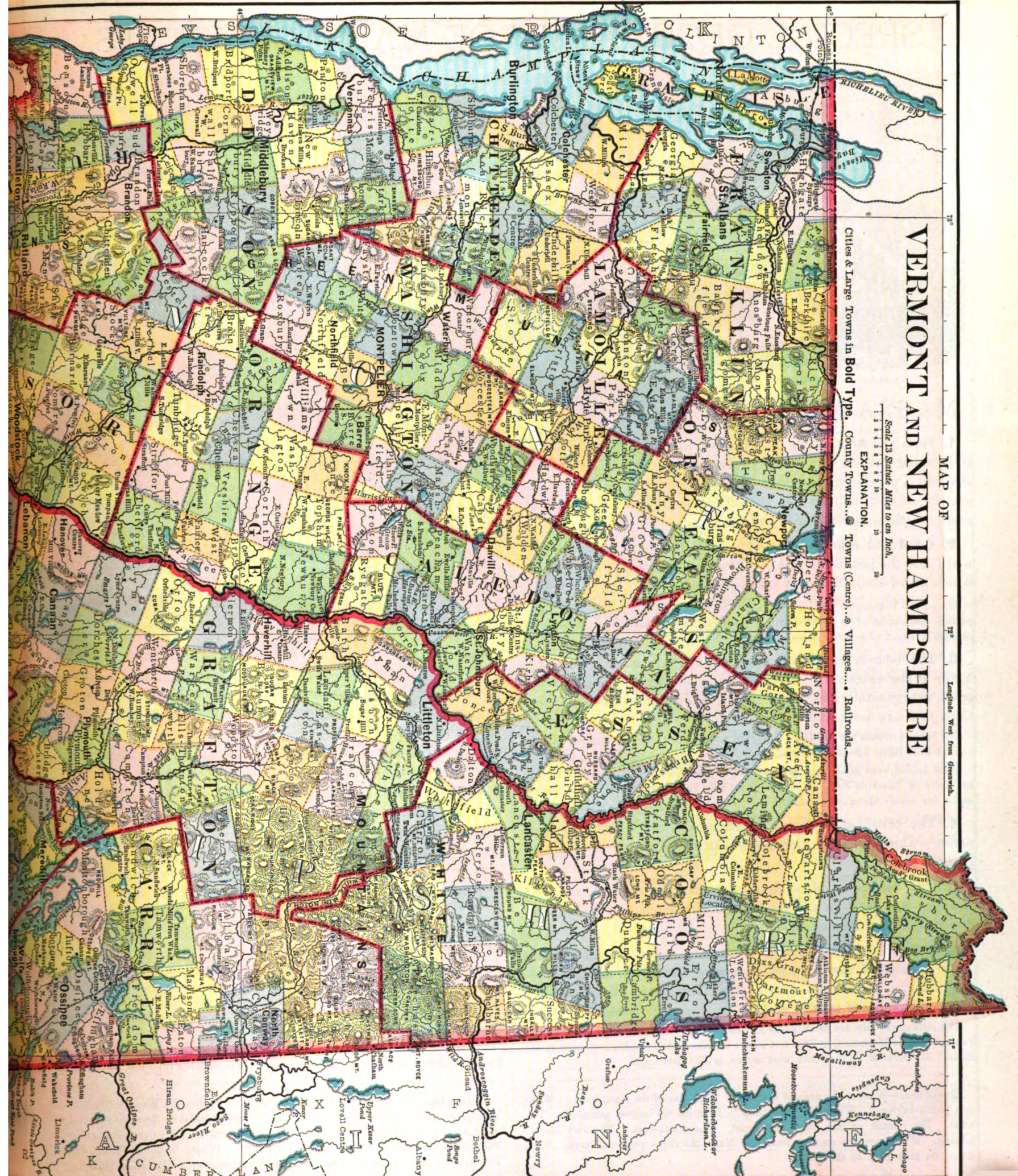
Burlington,	St. Johnsbury,	Bellevue Falls,	Poultney,
Rutland,	Colchester,	Castleton,	Waterbury,
St. Albans,	Barre,	Middlebury,	Highgate,
Bennington,	Brandon,	Montpelier,	Newport,
Brattleboro,	Northfield,	Woodstock,	Stowe,

MAP OF VERMONT AND NEW HAMPSHIRE

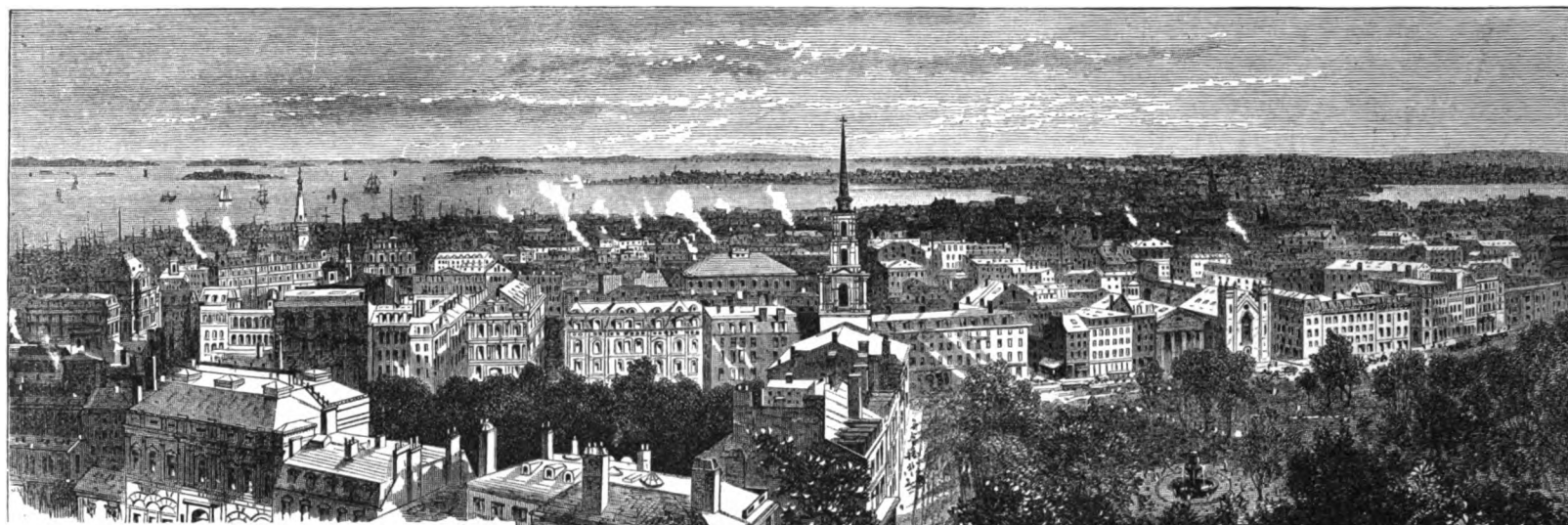
Scale 13 Statute Miles to an Inch.
1 2 3 4 5 6 7 8 9 10 15 20

EXPLANATION.

Cities & Large Towns in Bold Type. County Towns... Towns (Centre)... Villages... Railroads...



SPECIAL GEOGRAPHY OF MASSACHUSETTS.



VIEW OF BOSTON FROM THE STATE-HOUSE.

MASSACHUSETTS.

1. Form and Area.—The land area of the State is 8040 square miles. The main body has nearly the shape of a parallelogram, about 100 miles long and 50 wide. The eastern section includes two projections,—one towards the north-east, and the other towards the south-east.

2. Coast and Islands.—The outline of the Coast is very irregular; and the peninsulas and islands enclose many bays and sounds, which afford a number of excellent harbors.

The largest Peninsulas are Cape Cod and Cape Ann; the latter a bold rocky promontory, and the former a narrow strip of level sand which stretches out like a bent arm for a length of seventy miles.

3. The Islands resemble in character the neighboring mainland. Those at the entrance of Boston harbor, and along the north-east coast, are generally steep and rocky; while those which lie near Cape Cod are level and sandy.

The largest islands are Martha's Vineyard and Nantucket. The former is twenty-one, and the latter fifteen miles long.

Plum Island, nine miles long, is on the north-east shore. The Elizabeth Islands are south of Buzzards Bay. There are about fifty small islands in Boston harbor, and a few others along the coast.

4. The principal bays are Massachusetts, Cape Cod, and Buzzards,—which give the Commonwealth the name of the Old Bay State.

5. The Surface of Massachusetts is naturally divided into four sections—the Western and the Central Highlands, the Connecticut Valley, and the Atlantic Slope.

6. The Western Highlands, commonly called the Berkshire Hills, consist of two parallel ranges of the Green Mountains—the Taconic Mountains, west of the Housatonic River, and the Hoosac Mountains on the east.

The Berkshire Hills are remarkable for the beauty of their scenery. Greylock, a peak of Saddle Mountain, is 3500 feet above the sea, and is the highest land in the State. Mt. Everett, in the south-west corner, is 2500 feet high.

7. The Connecticut Valley lies east of the mountains, and is one of the most beautiful parts of the State. From its level surface, on opposite sides of the river, rise two hills called Mount Tom and Mount Holyoke.

These hills are about 1200 feet high, and command fine views of the beautiful valley and river. Mt. Holyoke is a popular resort for tourists.

8. The Central Highlands are between the Connecticut Valley and the Atlantic Slope, and form the water-shed between them. This is a hilly region, lower than the Western Highlands, and is a continuation of the Central Ridge of New Hampshire.

An irregular line drawn north and south through the State, and passing a little west of Worcester, would nearly mark the eastern limits of this division.

The principal summit is Mount Wachusett, near Fitchburg. It is 2000 feet high.

9. The Atlantic Slope extends, with a generally undulating surface, from the Central Highlands to the sea.

Low, wooded hills and green meadows give a picturesque variety to a great part of this section. But the north-eastern part terminates in rugged peninsulas like Cape Ann, Marblehead, and Nahant; and the south-eastern portion, including Cape Cod and the neighboring islands, is a low, sandy plain, with occasional elevations of one or two hundred feet.

The Blue Hills of Milton, near Boston, are the highest land on the Atlantic Slope. They are about 635 feet high, and are prominent landmarks from the sea.

Questions.—What is the area of the State? The size of the main body? What is a parallelogram? What two projections? Describe the largest peninsula. The next. The islands on the north-east coast. The south-east. The two largest islands. Where are the smaller islands? Name the three principal bays. What name do they give to the State?

Questions.—What four divisions of surface? Describe the Western Highlands. What is said of the Berkshire Hills? Their highest point? Between what highlands is the Connecticut Valley? Describe the two hills. The Central Highlands. The principal summit. The eastern boundary. Where is the Atlantic Slope? Describe the north-eastern part. The south-eastern part. The Blue Hills.

10. The Rivers are too shallow or too much obstructed to be of much commercial importance; but they are of great value for their water-power.

The *Merrimac* drives more machinery than any other river of its size in the world. The *Connecticut* furnishes immense water-power at South Hadley and Turner's Falls. The Blackstone and Quinnebaug, and many other small streams, are lined with factory towns and villages. The Housatonic is noted for beauty of scenery.

11. Lakes.—There are no large lakes; but there are many deep ponds, lying among the hills, which enliven the landscape, and also furnish large quantities of excellent ice.

12. The Soil is generally thin and poor; and on the highlands and along the coast it hardly repays tillage. But the valleys of the Connecticut and Housatonic have a rich, alluvial soil, which is very productive. The Connecticut Valley is the most fertile part of the State.

Near the great towns the land has been made fertile by skilful cultivation; and market-gardening in such places is profitable.

13. Climate.—The summers are warm, with occasional periods of intense heat; while the winters, especially in the interior, are very cold. The changes of temperature are often great and sudden at all seasons of the year, sometimes varying 40° in a few hours.

The air of Massachusetts is healthful. The east winds which prevail upon the coast are very disagreeable in the spring, but delightful in summer.

The climate of Cape Cod and the islands which lie south of it, is less changeable than that of the interior. Owing to the more even temperature of the surrounding ocean, the winters are comparatively mild and the summers cool.

14. Population.—With the exception of Rhode Island, no State in the Union is so densely peopled; but the population is very unequally distributed—more than half of the inhabitants living in the three north-eastern counties of Suffolk, Middlesex, and Essex,—and the centre of population is near the State-House.

15. Productions and Occupations.—*Manufacturing* is the principal business, for the soil and climate do not generally encourage farming; the native forests have been cut down, and there are no great and valuable mines, as in other parts of the country.

There is, therefore, nothing else for the people to produce, on a large scale, but manufactured goods.

Questions.—Why are the rivers useful for manufacturing? Why not for commerce? What is said of the Merrimac? The Connecticut? The small rivers? The ponds? What is the general character of the soil? Where is the best land? Why is market-gardening profitable? Describe the climate. Which is the most densely peopled State? The next? Why is manufacturing the principal business? What rank does Massachusetts hold in this industry?

16. In proportion to her population, Massachusetts is surpassed only by Rhode Island in the extent of her manufactures, and in the actual value of her manufactured productions only by New York and Pennsylvania.

The State is especially noted for the making of boots and shoes, and cotton and woollen goods. Here are the principal centres of these industries in the United States. (For further details, see *Tables of Industries*, p. 34.)

Besides these leading articles there is a great variety of other goods, which help to swell the total value of manufactured products to about \$600,000,000 a year.

17. Farming ranks next in importance to manufacturing, the yearly products amounting to about \$35,000,000. But so large a part of the State is unfit for farming, that the people depend principally upon the Central States for their supplies of grain and meat.

The Agricultural staples are grain, hay, and potatoes, tobacco (raised in the Connecticut Valley) and the products of market-gardening.

The Grazing products are livestock, butter, and cheese.

18. Among the minor industries are *Fishing*, *Quarrying*, and *Mining*.

19. Fishing.—The total fishing products amount to about \$8,000,000 a year. The State ranks first in this business. Most of the towns along the coast are engaged in it; and more than half the fishing products of the United States are taken in Massachusetts vessels.

The principal fish taken are the cod and mackerel, caught chiefly on the banks of Newfoundland; and the whale, taken in the Arctic and Pacific oceans.

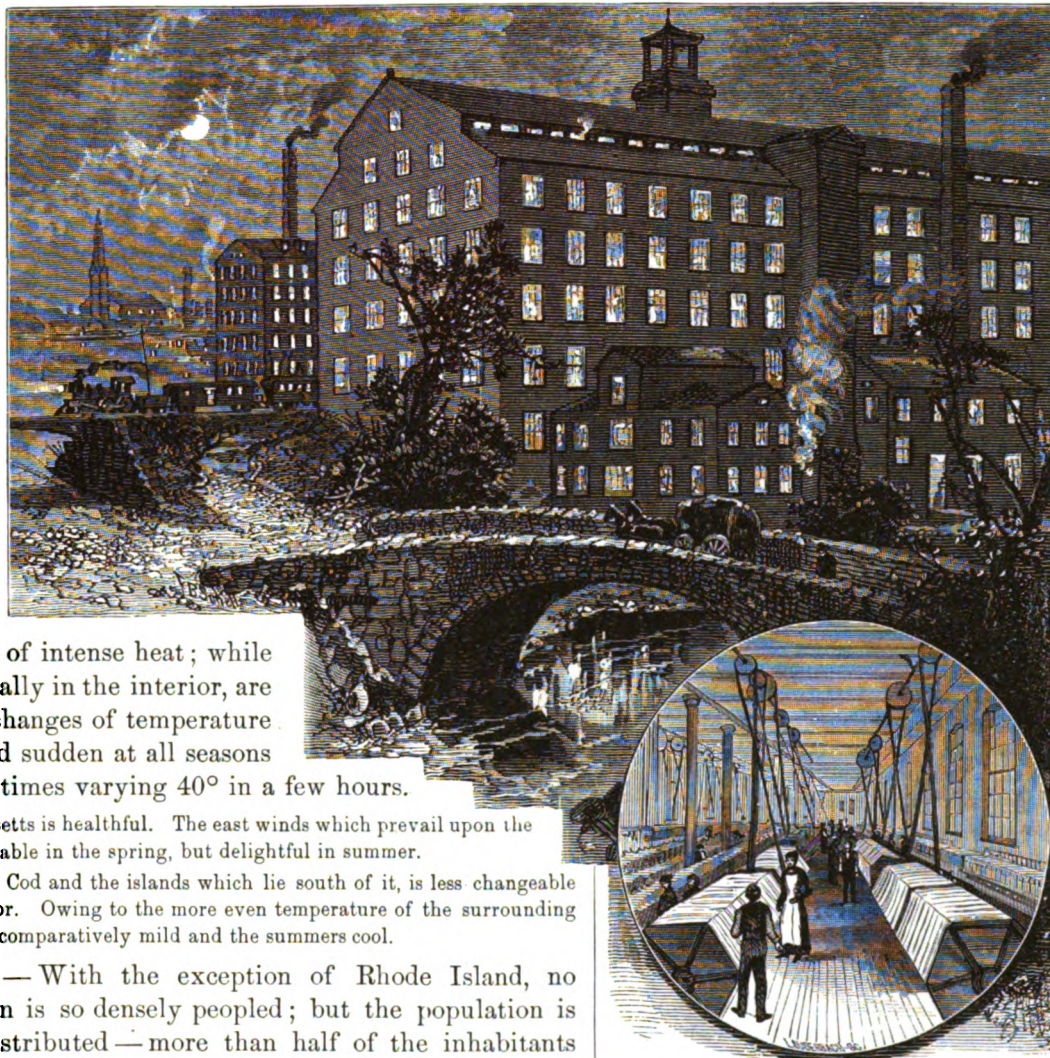
20. Quarrying and Mining.—Massachusetts is not rich in minerals. Granite is the most important, and is quarried in many towns

in the eastern part of the State. The quarries of Cape Ann and Quincy are the most widely known.

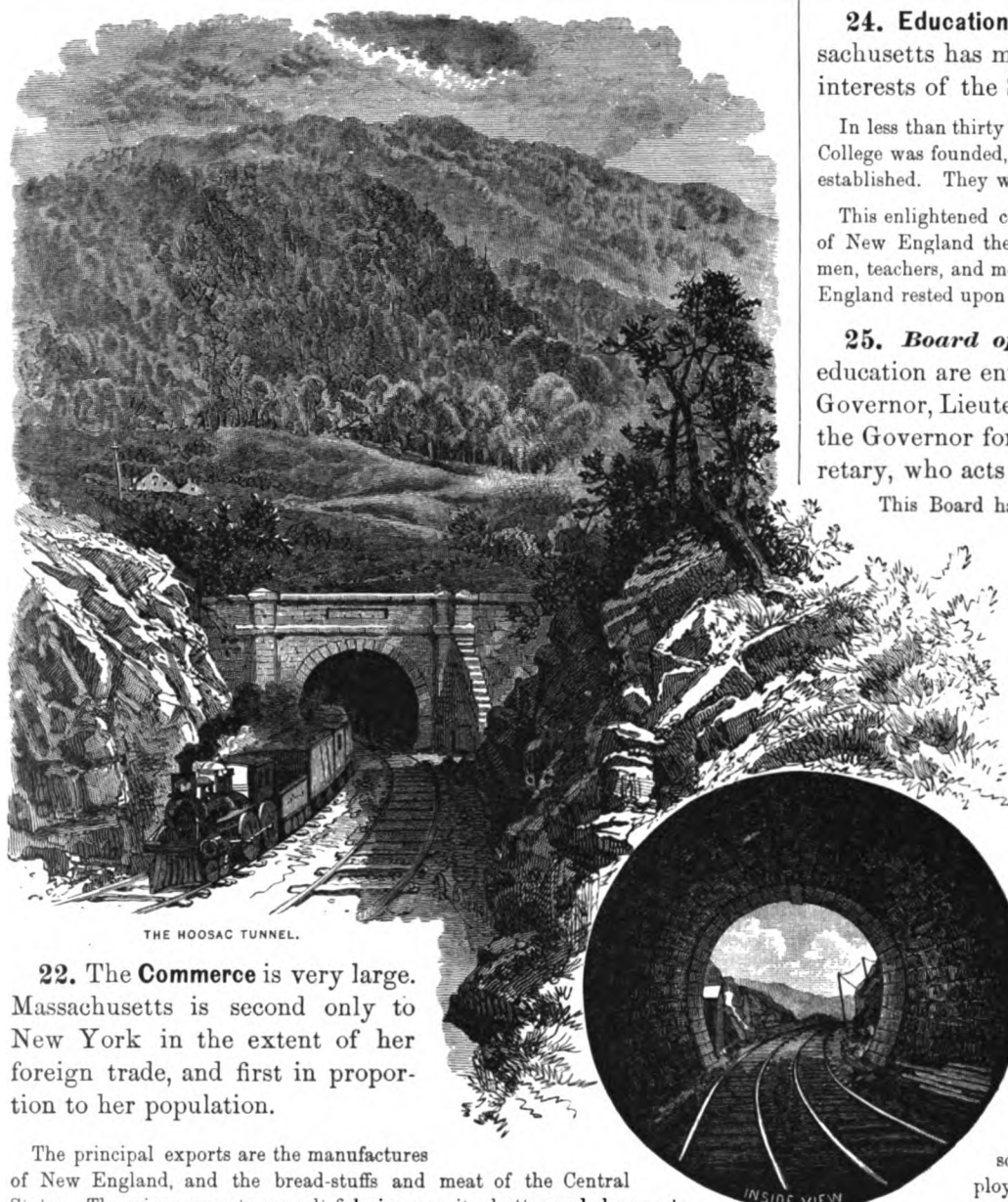
In the Housatonic Valley there are beds of iron ore, and glass sand of unusual purity. A lead mine, which is also rich in silver, has been recently discovered near Newburyport.

21. The Forests that once covered the State have almost disappeared; but large tracts of land, unfit for tillage, are now clothed with a new growth of trees.

Questions.—Name the four leading articles manufactured. The total value of manufactured products. What is said of farming? Name the agricultural staples. The grazing products. The minor industries. What is said of fishing? Name the principal fish taken. Where are they caught? Where is whale-fishing principally carried on? What is said of the minerals? Where is silver found? What is said of the forests?



A COTTON MANUFACTORY—EVENING.



22. The Commerce is very large. Massachusetts is second only to New York in the extent of her foreign trade, and first in proportion to her population.

The principal exports are the manufactures of New England, and the bread-stuffs and meat of the Central States. The minor exports are salt fish, ice, granite, butter and cheese, etc.

The greater part of the manufactured goods is consumed in the United States; for American manufactures cannot yet be classed among the leading exports to foreign countries, though the demand for them abroad is steadily increasing.

The commerce is carried on by many railways, which cross the State in every direction, and by sailing vessels and lines of steamers which visit every foreign and domestic port.

The Hoosac Tunnel was constructed to promote commerce with the West. This is a railway tunnel $4\frac{1}{2}$ miles long, through the Hoosac Mountains, in the north-western part of the State. It is one of the longest tunnels in the world.

23. Government.—The *Legislature*, called the General Court, consists of 40 Senators and 240 Representatives, elected annually.

The *Judiciary* comprises the Supreme Court, which consists of a chief and six associate judges; a Superior Court, with a chief and thirteen associates; Courts of Probate and Insolvency; and in the larger towns, municipal and police courts.

All the judges are appointed by the Governor for life or during good behavior.

The chief *Executive* officers are the Governor, with a Council of eight members; a Lieutenant-Governor, Secretary, Treasurer, Auditor, and Attorney-General. They are elected annually by the people.

Questions.—What rank does Massachusetts hold in commerce? Name the exports. Where are the manufactures chiefly consumed? How is the commerce carried on? Why was the Hoosac-tunnel made? Describe it. What is said of the Legislature? The Judiciary? The Executive officers? Where and when was a system of free public schools first created? Harvard College? Why were the people so enlightened upon the subject of education?

24. Education.—From the earliest period of her history, Massachusetts has made the education of her people one of the chief interests of the State.

In less than thirty years after the first colony was settled at Plymouth, Harvard College was founded, and a system of free schools, with compulsory attendance, was established. They were the first schools that were supported by general taxation.

This enlightened course was largely due to the fact, that among the early settlers of New England there was an extraordinary proportion of learned men—clergymen, teachers, and men of letters. "The corner-stone of the social structure of New England rested upon a book."

25. Board of Education.—The general interests of public education are entrusted to a Board of Education, composed of the Governor, Lieutenant-Governor, and eight members appointed by the Governor for a term of eight years. This Board elects a Secretary, who acts as Superintendent of Instruction.

This Board has no direct control over the common schools; but it has the care of the school fund, and recommends to the Legislature such school laws as may be necessary.

26. State Schools.—The Board of Education has the supervision of the State Normal Art School, in Boston, for training teachers of drawing; and of the five regular State Normal Schools, at Framingham, Salem, Worcester, Bridgewater, and Westfield.

The Agricultural College, at Amherst, is controlled by trustees appointed by the State, which contributes to its support.

27. Town Schools.—Each town supports and controls its own schools. But all towns of less than \$10,000,000 valuation of real and personal estate receive, besides what money they raise for themselves, a share of the school fund. Every town having 500 families or more, is obliged by law to maintain a High School.

All children between eight and fourteen years old must attend school at least twenty weeks in every year; and parents or employers who fail to comply with this law, are subject to a fine.

28. The Private Institutions include academies, colleges, and universities, for men and for women, and schools of art, science, and the various professions.

Among the institutions for the higher education of women, are *Wellesley College*, at Wellesley; *Smith College*, at Northampton; and *Mount Holyoke Seminary*, at South Hadley. Women are also admitted to *Boston University*, and to some of the privileges of *Harvard University*.

There are seven colleges for men: *Harvard University*, at Cambridge; *Boston University*, and *Boston College*, at Boston; *Amherst College*, at Amherst; *College of the Holy Cross*, at Worcester; *Williams College*, at Williamstown; and *Tufts College*, at Medford.

The professional and scientific schools include seven of theology; two of law, several of medicine, dentistry, and pharmacy; the *Massachusetts Institute of Technology*, in Boston; the *Free Institute of Industrial Science*, at Worcester; *Lawrence Scientific School*, and the *Museum of Comparative Zoology*, at Cambridge. Many of these are attached to some of the Colleges or Universities.

Among the secondary schools of note are *Phillip's* and *Abbott Academies*, at Andover; *Williston Seminary*, Easthampton; *Bradford Academy*, Bradford; *Wilbraham Academy*, Wilbraham; *Dean Academy*, Franklin; *Monson Academy*, Monson; *Adams Academy*, Quincy; *Maplewood Institute*, Pittsfield; and *Thayer Academy*, at Braintree.

Questions.—How early was Harvard College founded? Repeat the quotation concerning the social structure of New England. What is said of the Board of Education? Its powers? The Normal Schools and Colleges? The town schools? Compulsory attendance? What three grades of private institutions? Name the higher institutions for women. For men. Those for both sexes. The professional and scientific schools. Name some of the principal secondary schools.

29. History.— Landing of the Pilgrims.— On the 21st of December, 1620, there landed at Plymouth Bay a little English company of men, women, and children, who are known in our history as the Pilgrims.

The word "pilgrim" means *wanderer*, and is applied especially to those who leave their native land to perform some religious duty. The Pilgrims belonged to a colony of Englishmen, who had been living for some years in Holland, whither they had fled to escape from religious persecution at home. They had been called Pilgrims even while living in Holland. Before leaving their vessel, they declared that every man should have an equal share in the government; and they chose John Carver for their Governor.

One hundred and one persons landed from the *Mayflower*. And this was the first permanent settlement of Europeans in Massachusetts. Within a year from their arrival about half their number died from fatigue, hunger, and exposure. But when the vessel returned in the Spring, not one of the little company was willing to go back to Europe.

30. Puritan Settlements.— In 1629, a colony of 400 Puritans arrived from England, and founded a town which they called Salem, a Hebrew word meaning *peace*. And the next year there came 1000 more, with Governor John Winthrop at their head.

The Puritans, like the Pilgrims, were religious reformers, who were persecuted by the government because they dissented from the Established Church of England. They were called *puritans*, in derision, because they claimed to have a simple, and purer form of faith.

This company, called the Massachusetts Bay Colony, soon afterwards settled Boston, Roxbury, Dorchester, Charlestown, Watertown, and several other places. The Massachusetts Bay Colony numbered many rich and highly educated men.

But notwithstanding their greater wealth and numbers, the Puritans at first suffered as much as the Pilgrims from hunger and disease.

31. Salem Witchcraft.— About 200 years ago there was a general belief throughout Europe that certain persons had the power to injure others by the practice of magic arts. Such persons were called *witches*, and many of them were put to death. In Scotland alone, 4000 of these so-called witches were executed in ten years.

This strange delusion extended to Massachusetts about the year 1692; and was particularly active in Salem and the neighboring towns. During the short time it lasted, twenty innocent persons were hanged on Gallows Hill, an eminence in Salem.

32. Union of the two Colonies.— In 1692, the colonies of Plymouth and Massachusetts Bay, were united under the name of Massachusetts, the name of one of the native tribes.

33. The Pequod War.— The first war in which the Massachusetts colonies were engaged, was with a fierce tribe of Indians called the Pequods, who had been very troublesome to the settlers of Connecticut.

This war involved all the New England colonies, and closed with the severe defeat of the savages in 1637. After this there was little fighting for about forty years.

Questions.— What is said of the landing of the Pilgrims? What does the word mean? Who were they? What kind of government did they establish? How many came in the *Mayflower*? How many died the first year? What is said of the first Puritan settlements? Who were the Puritans? What is said of the Salem witchcraft? Of the union of the two colonies? Describe the Pequod war. King Philip's war. How many years from that war to the French and Indian wars?



OLD FANEUIL HALL.

34. King Philip's War, which broke out in 1675, was the severest of the early Indian wars, and gave a serious check to the prosperity of the New England colonies.

King Philip, as he was called by the settlers, was the ablest of the native chiefs; and he saw clearly that his people were in danger of being driven from the soil. Already the whites of New England numbered 55,000 to 30,000 of the natives; and the latter were reduced to small tracts of territory here and there. So he united the tribes of New England, and made a desperate effort to drive the settlers from the land.

In this war, which ended with the death of Philip in the latter part of 1676, 600 of the colonists were killed and thirteen towns were burned. But the Indians suffered so severely that there was peace until the breaking out of the French and Indian wars.

35. The terrible French and Indian Wars, in which nearly all the American colonies were involved, broke out in 1689, and lasted with some intervals till 1763.

The French claimed Canada and Nova Scotia, and all the interior of North America to the mouth of the Mississippi, and forbade the English to settle in any part of that region, or even to trade with the natives. And this brought on the long series of wars which were really a struggle between France and England for the mastery of the continent.

Most of the Indian tribes joined the French, and hoped with their aid to exterminate the English. The French gave the Indians fire-arms, and helped them with troops; so that these wars were far more dreadful than the early contests with the natives.

To keep the French in their own territory it was necessary to attack them there; and one of the most important expeditions undertaken for that purpose was fitted out at Marblehead, by the Massachusetts Colony.

The object was to take the strong French fortress of Louisburg, on Cape Breton Island. The men of the expedition were from Massachusetts, New Hampshire, and Connecticut. They succeeded in taking the place in 1754, after a siege of fifty days.

At last the wars ended in 1763,—Canada being surrendered to England, with all the vast territory east of the Mississippi River, except some fishing-stations near Newfoundland.

By this long period of warfare the colonies were becoming prepared for the more severe struggle with Great Britain, which was now fast approaching.

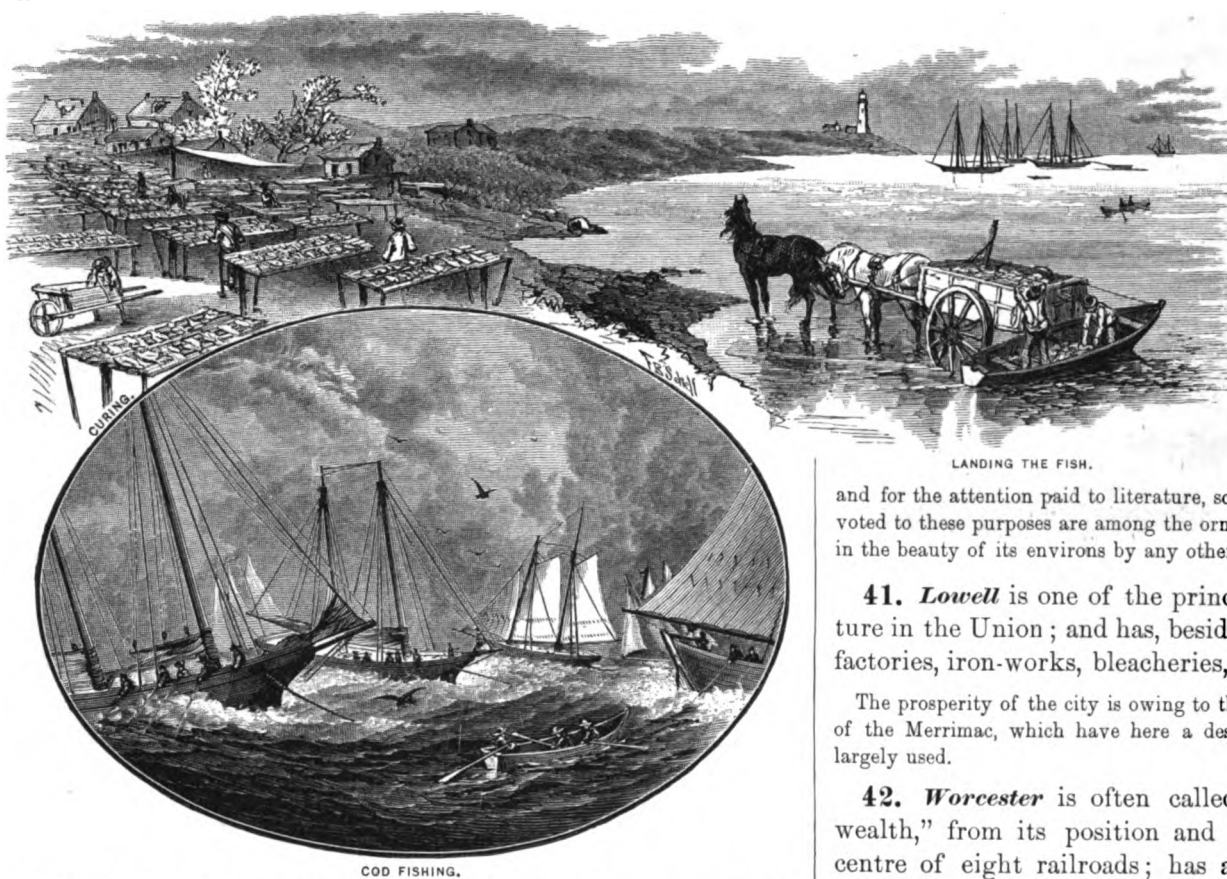
36. The Revolutionary War was brought on by the refusal of the American colonies to be taxed by the British Government, unless they had a voice in deciding what these taxes should be. "No taxation without representation," was their motto.

The first blood shed in this contest was at Lexington and Concord, in April, 1775. And the first great battle was fought at Bunker Hill on the 17th of June in the same year. On the 17th of March, 1776, the British were forced to evacuate Boston, after a siege of nine months; and the war was then transferred to the other provinces. But Massachusetts was steadfast and foremost throughout the War of Independence; and the valor and patriotism of her sons were conspicuous on every field.

37. In the War of 1812, the seamen of the State distinguished themselves in many a naval battle; and in the great *Civil War*, Massachusetts bore a leading part from the beginning to the end. She furnished more than 160,000 men to the national cause.



Questions.—How many years did the latter last? What was the cause? Why did the Indians generally join the French? Why did the New England colonists wish to take Louisburg? When did these wars close? What results were gained? Of what service was this long struggle? What caused the Revolution? What events of that contest took place in Massachusetts? What is said of the War of 1812? Of the great Civil War?



Other objects of interest are the Bunker Hill Monument, at Charlestown; the "Common," with its grand old elms; the beautiful Public Garden, surrounded by stately mansions; and many costly and elegant buildings, public and private.

In November, 1872, the wholesale business portion of Boston was destroyed by fire. The extent of the "burnt district" was sixty-five acres, and the loss about eighty millions of dollars. This portion is entirely rebuilt with more elegant buildings on wider streets.

Boston has always been noted for its public schools and benevolent societies, and for the attention paid to literature, science, and the fine arts. The buildings devoted to these purposes are among the ornaments of the city. Boston is unsurpassed in the beauty of its environs by any other great city in America.

41. Lowell is one of the principal seats of the cotton manufacture in the Union; and has, besides, extensive woollen mills, carpet factories, iron-works, bleacheries, etc. Seven railroads meet here.

The prosperity of the city is owing to the vast water-power furnished by the falls of the Merrimac, which have here a descent of thirty feet. Steam-power is also largely used.

42. Worcester is often called the "Heart of the Commonwealth," from its position and political importance. It is the centre of eight railroads; has a large country trade, and a great variety of manufactures.

Among the leading articles are boots and shoes, and clothing; agricultural implements, and machinery; furniture, iron and steel wire.

43. Cambridge is, next to Boston, the wealthiest city in the State. It is principally known as the seat of Harvard University, the oldest and most richly endowed college in America.

There is little business activity in Old Cambridge—the residents being chiefly business men of Boston, retired merchants, and men of letters and science.

The city contains, however, some book-binderies and printing-offices, which have a wide reputation; and there are in East Cambridge and Cambridgeport other extensive manufactories.

44. Fall River, on Mount Hope Bay, at the mouth of Taunton River, holds the first rank among the towns of America in the manufacture of cotton goods; and has, besides, extensive iron-works and other factories.

The city is named from a stream which flows into the mouth of Taunton River, and furnishes immense water-power.

Fall River has an excellent harbor, and is engaged in commerce and the fisheries. Steamers run daily to Providence, Newport, and New York.

45. Lawrence is engaged in the manufacture of cotton and woollen goods, paper, boots and shoes, furniture, machinery, and many other articles.

The water-power of the Merrimac (which has a gradual descent of 26 feet within the city) is collected by a magnificent dam across the river, and distributed among the factories by a canal on each side.

46. Lynn is the first city in the country in the manufacture of women's shoes. It is delightfully situated on Lynn harbor and Nahant Bay, and is a favorite summer resort.

38. Towns.—*Boston* is the capital of Massachusetts, and the principal city of New England. The population by the census of 1890 is nearly 450,000. It is the fourth in size of the cities of the Atlantic seaboard.

The whole region around the city for many miles is like one great town, some parts being compact cities, and others like country villages; and the business of the inhabitants mainly centres in Boston. Including the towns within ten miles of the State House, the city would have a population of considerably more than half a million.

39. Boston ranks second among the cities of the Union in the total value of its imports and exports—New York being the first port in the country in commercial importance.

The chief *foreign exports* are flour, grain, beef, bacon, hams, lard, butter, cheese, furniture, fish, ice, and live-stock.

The ice trade is of Boston origin; the first cargo ever shipped having been sent from this port to the island of Martinique, in 1806.

The *domestic trade* is very large, especially in boots and shoes, leather and hides; wool and cotton; manufactured goods, fish, flour, grain, and musical instruments.

Boston has the largest wool trade of any city in the Union; is the greatest market in the world for hides, boots, and shoes; and is the principal depôt for New England manufactures.

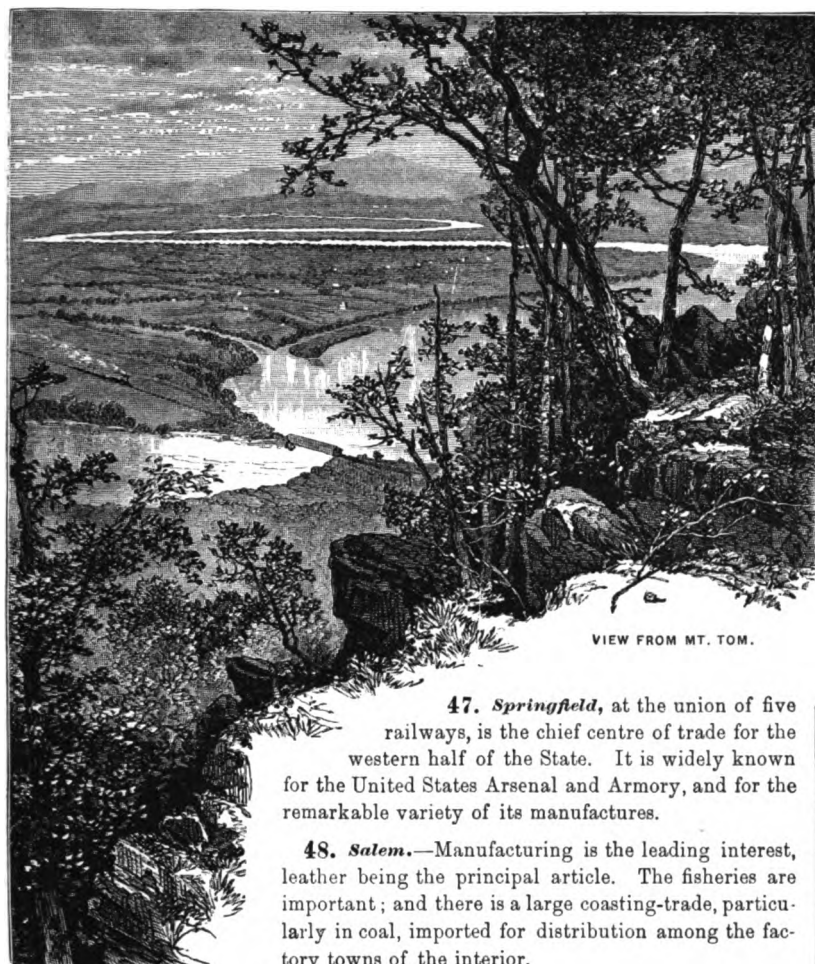
Eight important railways centre here. Most of them are connected together by the Grand Junction Railroad, which passes around the city.

40. Boston was named for the old town of Boston in England. The word is a contraction of "St. Botolph's Town." Many years ago there was a St. Botolph's chapel in the city.

Among the many objects of historic fame which the city contains, the most celebrated are Faneuil Hall,—called the "Cradle of Liberty," built in 1742 by Peter Faneuil, a gentleman of Huguenot descent,—and the Old South Church.

Questions.—State the population of Boston. Its rank in New England. Describe the environs. State its rank in commerce. The foreign exports. What is said of the ice trade? Where is Martinique? What is said of the domestic trade? Of the trade in wool? In hides, boots, and shoes? In New England manufactures? Describe the Grand Junction Railway. What is the origin of the name *Boston*? What objects of interest in the capital?

Questions.—What is said of the great fire? For what is Boston noted? What is said of Lowell? To what does this city owe its prosperity? What is Worcester called? Why? Why has it a large country trade? What are its exports? What is said of Cambridge? What rank has Fall River in the manufacture of cotton goods? From what is the city named? What is said of Lawrence? Of Lynn? What localities might the picture on this page represent?



VIEW FROM MT. TOM.

47. *Springfield*, at the union of five railways, is the chief centre of trade for the western half of the State. It is widely known for the United States Arsenal and Armory, and for the remarkable variety of its manufactures.

48. *Salem*.—Manufacturing is the leading interest, leather being the principal article. The fisheries are important; and there is a large coasting-trade, particularly in coal, imported for distribution among the factory towns of the interior.

49. *New Bedford* is the principal whaling port in the world; but manufacturing and the coasting trade are also leading interests.

50. *Taunton*, on Taunton River, has a considerable coasting trade; but the leading interest is manufacturing. Cotton goods, nails and tacks, machinery, locomotives, steam-engines, and silver-ware are the chief articles.

51. *Gloucester* has one of the best harbors on the Atlantic coast, and far surpasses any other port in the country in the extent of its cod and mackerel fisheries.

It is also widely known for its granite quarries, and for its ocean views and sea-bathing, which attract great numbers of summer boarders.

The other chief fishing towns are *Marblehead*, *Beverly*, *Wellsfleet*, and *Provincetown*.

52. *Holyoke* is sometimes styled the "Paper Metropolis of the World," on account of the extent of its paper manufactures. There are also large cotton and woollen mills.

The dam across the Connecticut River, which here falls 60 feet in three-quarters of a mile, affords one of the most extensive water-powers in the world.

53. *Somerville* contains high hills, which command a view of Boston and vicinity, and are of historic interest in connection with the Revolutionary war. It has the largest pork-packing establishment in New England.

54. *Chelsea* is the third in size of the suburban cities of Boston. It has various manufactures, but is principally the residence of Boston business-men.

55. *Newton* is one of the most popular and beautiful of the suburbs of Boston. The residents generally do business in that city.

56. *Brookline*, lying between Newton and Boston, is the wealthiest and most beautiful suburb of Boston, and rivals in beauty the finest suburbs of London.

57. There are many other beautiful residential towns within a few miles of Boston. Among these are *Nahant* and *Swampscott*, noted for ocean scenery; *Everett*, *Malden*, *Melrose*; *Wakefield*, which manufactures rattan goods; *Danvers*, which contains a Lunatic Hospital; *Medford* and *Winchester*. These are all upon the northern and eastern railways.—West and southwest are *Arlington* and *Belmont*, engaged in market-gardening; *Lexington*, of historic fame; *Watertown*, containing Mount Auburn Cemetery, the first rural cemetery in the country; *Needham*, and *Wellesley*, the seat of Wellesley College; *Dorham*, the shire-town of Norfolk County; *Hyde Park*, a growing manufacturing town; *Milton*, containing the Blue Hill; *Braintree*, the seat of Thayer Academy; *Hingham*, containing the homestead and grave of John A. Andrew; and *Cohasset*, a favorite summer resort.

58. *Haverhill* is second only to Lynn in the manufacture of boots and shoes.

59. *Newburyport* is engaged in ship-building, fishing, and manufacturing, and has an extensive coastwise commerce. It is a beautiful town, built upon rising ground which commands a view of the sea and surrounding country.

60. *Fitchburg* is an important manufacturing city on the Nashua River, which furnishes water-power. It contains extensive granite quarries.

61. *Pittsfield*, the shire-town of Berkshire County, is one of the most beautiful towns in the State. It has extensive manufactories of woollen goods.

62. *North Adams*, at the western end of the Hoosac Tunnel, is a thriving manufacturing town. Many Chinese were at one time employed here in the boot and shoe manufactories. It was formerly a part of the town of Adams, but was incorporated as a separate town in 1878.

63. *Chicopee* manufactures cotton goods, machinery, agricultural implements, tools, cannon, small arms, and bronzes.

64. *Northampton* is noted for its healthfulness and beauty. A State Lunatic Hospital and the Clark Institution for deaf-mutes are located here.

65. *Brockton*, the largest town in Plymouth County, ranks next to Haverhill in the manufacture of boots and shoes, and is the centre of an important local trade.

Weymouth, *Milford*, *Marlboro*, *Natick*, *Stoneham*, *Rockland*, *Arlington*, and *Stoughton* are also leading boot and shoe manufacturing towns.

66. *Waltham* contains the manufactory of the Waltham Watch Company, the largest establishment in the world for making watches by machinery.

67. *Woburn* is known for its extensive tanneries. It manufactures also glue and chemicals, boots and shoes.

68. *Attleborough* and *North Attleborough* contain over thirty establishments for the manufacture of jewelry.

69. *Quincy* was the home of two Presidents. It is noted also for its granite quarries and for its excellent schools. The first railroad in this country was built here in 1827, to transport granite for shipment.

70. *Marblehead* is a quaint and interesting old town. The people have been engaged in fishing from its earliest settlement; and this bold and hardy population have always been sturdy defenders of the Republic. They sent the first troops to Boston to aid in crushing the Rebellion, and furnished in all 1440 men.

71. *Providence* is the birthplace of George Peabody, the London banker, who founded here the Peabody Institute, and bequeathed for educational and charitable purposes \$7,000,000. It contains thirty-five manufactories of leather.

72. *Clinton*, on the Nashua River, has good railway facilities, and manufactures Brussels and Wilton carpets, cotton goods, wire cloth, and horn goods.

73. *Nantucket* includes Nantucket Island and the neighboring islets. The winter is mild, and the summer so cool that the island has become a favorite summer resort.

74. *Provincetown* is the place where the Pilgrims first landed after their stormy passage across the Atlantic. They cast anchor in what is now Provincetown Harbor, and sent out an exploring party along the coast.

75. *Plymouth* is an historic town of great interest. It contains Plymouth Rock, a monument in honor of the Pilgrim Fathers, and Pilgrim Hall, where are collected many relics of the first settlers.

76. The principal Cape towns, besides those already mentioned, are *Barnstable*, the shire-town; *Sandwich*, *Yarmouth*, *Dennis*, *Harwich* and *Chatham*.

77. *BERKSHIRE COUNTY* is noted for beautiful scenery, and is the summer residence of many famous literary men and women. The principal towns besides those already mentioned are *Adams*, an important manufacturing town; *Great Barrington*, *Lee*, *Williamstown*, *Stockbridge*, *New Marlboro*, and *Lenox*.

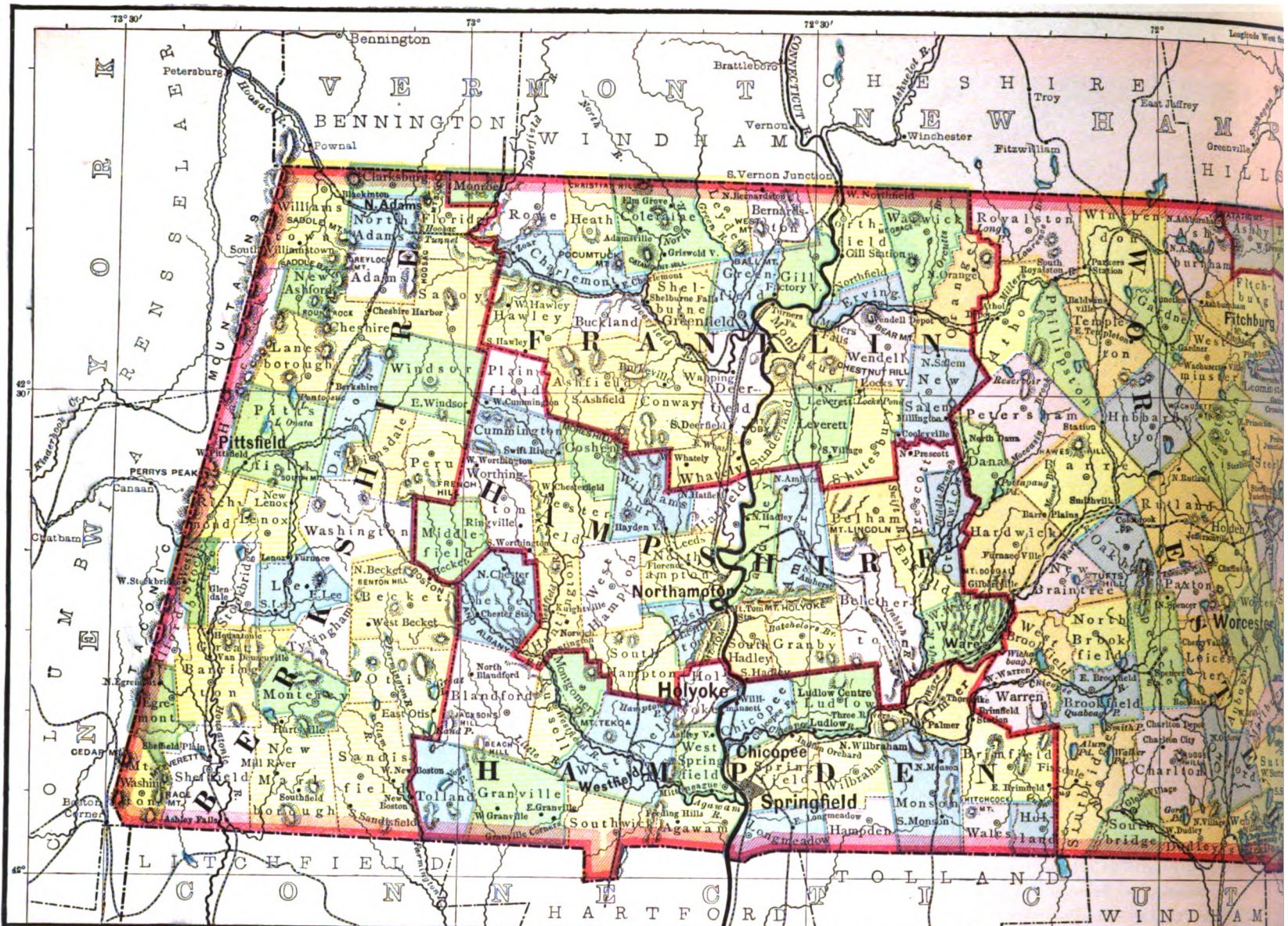
78. In *FRANKLIN COUNTY* the principal towns are *Greenfield*, the shire-town; *Deerfield*; and *Montague*, containing the village of *Turner's Falls*.

79. In *HAMPSHIRE COUNTY*, *Ware*, *Amherst*, *Easthampton*, and *South Hadley*.

80. In *HAMPDEN COUNTY* are *Westfield*, which manufactures whips extensively, and cigars from tobacco raised in the Connecticut Valley; *Palmer*, and *Monson*.

81. In *WORCESTER COUNTY*, northern part, are *Athol*, *Gardner*, *Winchendon*, *Leominster*. Near Worcester, *Westborough*, *Grafton*, *Milbury*, *Spencer*, and *North Brookfield*. In the southern part, *Southbridge*, *Webster*, *Blackstone*, and *Northbridge*.

82. *Summer Resorts*.—The eastern coast of Massachusetts is much resorted to in summer for grand ocean scenery and sea-bathing. The most popular resorts are *Edgartown* and *Cottage City*, on Martha's Vineyard; *Nantasket Beach*, near the entrance to Boston Harbor; *Nahant*, *Swampscott*, and *Beverly*, summer residences of wealthy Bostonians, and *Pigeon Cove* at the extremity of Cape Ann. *Princeton*, near Mount Wachusett, is one of the highest towns in the State, and is resorted to for its pure and healthful air



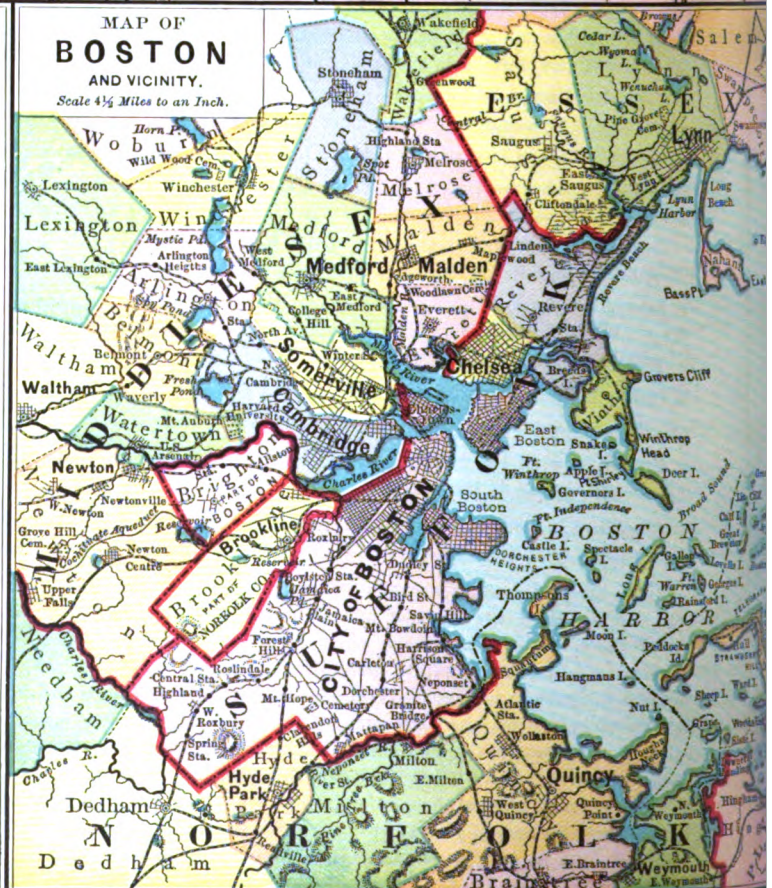
Questions.

Position and Outline.—Bound Massachusetts. What are the two principal peninsulas on the coast? What two small peninsulas partially enclose Boston Harbor? Name two between Winthrop and Cape Ann. Name three bays on the coast. What islands south of Cape Cod? Where is Vineyard Sound? Between what parallels is the body of the State? What meridian passes through the centre of the State? What meridian near Boston? What part of South America does this meridian cross?

Surface and Rivers.—What mountains cross the western part of the State? What river between them? What is the highest mountain in the State? What mountain in the south-west corner? What separates Mount Tom and Mount Holyoke? What is the highest mountain east of the Connecticut River? What are the two principal rivers of the State? Name four branches of the Connecticut. Name two branches of the Merrimac. What rivers flow into Boston Harbor? Into Narragansett Bay? Into Long Island Sound? What river flows into the Hudson in New York?

Towns.—What is the largest city in the State? What three cities are suburbs of Boston? Name three cities north-east of Boston. What four cities on the Merrimac? What cities on Taunton River? On Buzzards Bay? Nearest the centre of the State? Largest town on the Connecticut River? Name three other towns on that river? Largest town on the Housatonic River? On the Nashua River? Give the location of the following places, and tell for what they are noted: Pigeon Cove, Beverly, Marblehead, Swampscott, Nahant, Quincy, Hull, Cohasset, Plymouth, Provincetown, Vineyard Haven, Cottage City, Nantucket, Williamstown, Amherst.

Counties.—Which is the most western county? What counties are intersected by the Connecticut River? Which is the central county? Name the two north-eastern counties. In what county is Boston? What counties south of Boston? In what county is Cape Cod? Name the island counties. Commit to memory the counties in the following order (looking upon the map): Berkshire, Franklin, Hampshire, Hampden, Worcester, Middlesex, Essex, Suffolk, Norfolk, Bristol, Plymouth, Barnstable, Dukes, Nantucket. In what county do you live? What counties border upon it? What is the shire-town of your county? Of the adjacent counties?



MAP OF MASSACHUSETTS.

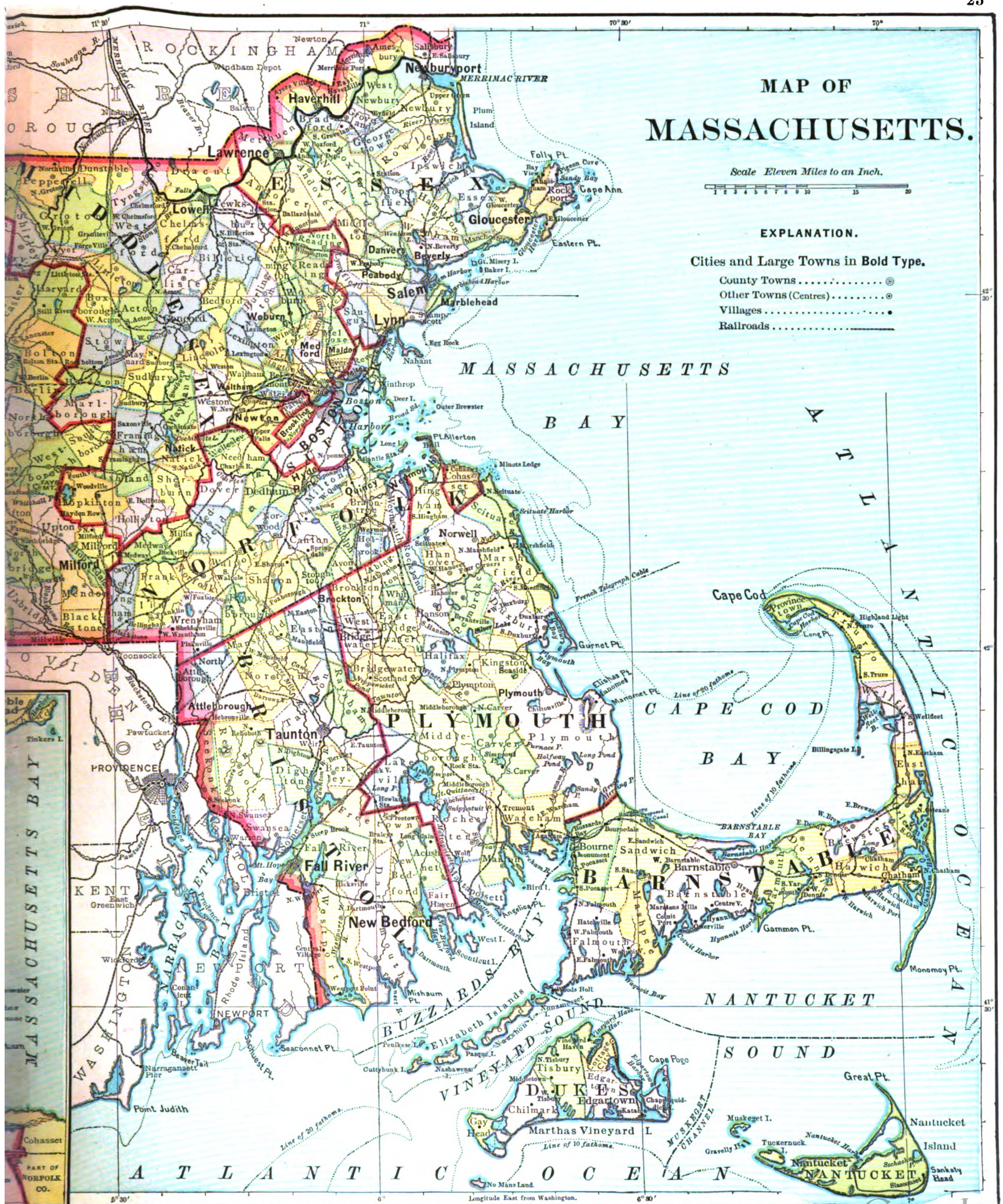
Scale Eleven Miles to an Inch.



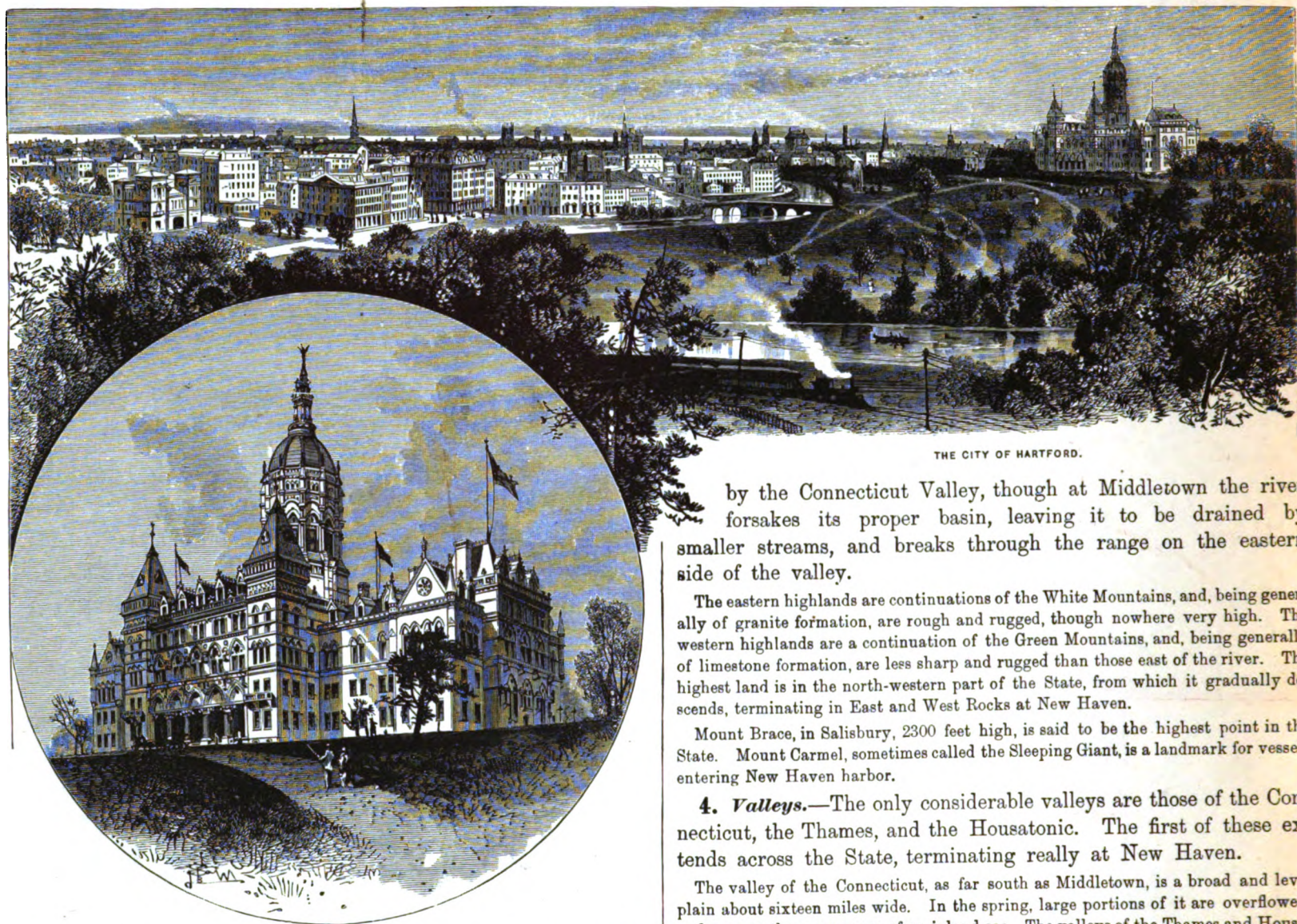
EXPLANATION.

Cities and Large Towns in Bold Type.

- County Towns ©
- Other Towns (Centres) •
- Villages •
- Railroads —



SPECIAL GEOGRAPHY OF CONNECTICUT.



THE CITY OF HARTFORD.

1. Form and Area.—Connecticut is in form nearly a parallelogram, and contains 4845 square miles of land surface; being the smallest State in the Union, except Rhode Island and Delaware.

2. Coast.—The coast, which borders on Long Island Sound, is generally low.

Harbors.—There are numerous harbors, the most important of which are those of Stonington, New London, Saybrook, New Haven, and Bridgeport. There are also convenient havens at Mystic, Niantic, Clinton, Guilford, Branford, Milford, Black Rock, Norwalk, and Stamford.

Projections.—The principal projections are Saybrook Point, Sachem's Head, and Stratford Point. These and many similar places are provided with lighthouses for the protection of the extensive traffic and travel of Long Island Sound.

Islands.—Fisher's Island is the largest on the coast. The smaller islands are considerably resorted to in summer.

3. Surface.—**Highlands.**—Like other parts of New England, Connecticut has two systems of highlands, which are separated

by the Connecticut Valley, though at Middletown the river forsakes its proper basin, leaving it to be drained by smaller streams, and breaks through the range on the eastern side of the valley.

The eastern highlands are continuations of the White Mountains, and, being generally of granite formation, are rough and rugged, though nowhere very high. The western highlands are a continuation of the Green Mountains, and, being generally of limestone formation, are less sharp and rugged than those east of the river. The highest land is in the north-western part of the State, from which it gradually descends, terminating in East and West Rocks at New Haven.

Mount Brace, in Salisbury, 2300 feet high, is said to be the highest point in the State. Mount Carmel, sometimes called the Sleeping Giant, is a landmark for vessels entering New Haven harbor.

4. Valleys.—The only considerable valleys are those of the Connecticut, the Thames, and the Housatonic. The first of these extends across the State, terminating really at New Haven.

The valley of the Connecticut, as far south as Middletown, is a broad and level plain about sixteen miles wide. In the spring, large portions of it are overflowed, and present the appearance of an inland sea. The valleys of the Thames and Housatonic are narrower; the latter affords much romantic and beautiful scenery.

5. Rivers.—The three principal rivers are the Connecticut, the Thames, and the Housatonic, which, with their branches, drain most of the surface.

The *Connecticut*, with its branches, drains the central part of the State. It is navigable for steamboats as far as Hartford, a distance of fifty miles. Its principal tributary is the Farmington River.

The *Housatonic* is navigable for small vessels to Derby, a distance of twelve miles. Its principal branches are the Naugatuck and Shepaug Rivers.

The *Thames* is navigable for steamboats and large vessels to Norwich, a distance of fifteen miles. Its mouth affords one of the best harbors in the country.

The early English settlers were so struck by the commercial advantages of this river that they named it the Thames, and the place which they founded upon its banks, New London. The Thames is formed by the union of the Yantic and Quinnebaug, and receives the Willimantic and Shetucket Rivers. There are also some smaller streams flowing directly into the Sound. The principal of these are the Quinnipiack and Norwalk.

Questions.—What is the form and area of Connecticut? How does it compare in size with the other States? What is the character of the coast? Which are the most important harbors? Name the principal projections from the coast. What is the largest island on the coast? What is said of the smaller islands? What is said of the highlands? Of what mountain ranges are they continuations?

Questions.—Where is the highest portion of the State? What is the highest mountain in the State? What is said of Mount Carmel? What are the principal valleys of the State? Describe the Connecticut Valley. What is said of the Thames and Housatonic valleys? What are the principal rivers? Describe the Connecticut River. The Housatonic. The Thames.

6. Soil.—The soil of the valleys is fertile, and affords excellent farming lands. That of the Connecticut, owing to the deposit left by the spring freshets, is deep and rich, and is the most fertile part of the State.

The hills are more stony and sterile, but those in the north-western part of the State afford good pasture-land and upland meadows. Along the coast the soil is light and sandy.

7. Climate.—The climate is milder than that of the States farther north; but the winter is cold, especially among the hills, and the heat of summer is often oppressive.

8. Productions and Occupations.—Manufacturing.—In manufacturing, which is the leading industry, Connecticut as a State ranks fifth in amount and first in variety.

The ingenuity of the people has always been remarkable. In proportion to her population, Connecticut has received more patents for inventions than any other State in the Union. There is an abundance of water-power, but steam is also extensively used.

The *textile fabrics*, which are produced in large quantities, are white and printed cottons, woollen goods, carpets, hosiery, and silks. The *hardware* manufactures, of which Connecticut furnishes nearly as much as all the other States combined, comprise builders' and carriage hardware, agricultural implements, machinery and mechanics' tools, fire-arms, cutlery, silver-plated ware, brass goods, engines and boilers.

Kindred to these are the great manufactures of clocks and sewing-machines. Carriages, rubber goods, pianos, hats, paper, and ammunition are extensively manufactured. Besides these are a great amount and variety of miscellaneous goods, often called "Yankee Notions;" such as buttons, pins, needles, thread, fish-hooks, and friction matches.

Connecticut produces nearly one-half the hardware and about three-fourths of all the clocks made in the United States. So numerous and extensive are the manufactures that the State seems one great workshop, and is sometimes said to be "nearly roofed over" with factories.

9. Farming is the second industry of the State, about three-fourths of its area being under cultivation.

The valleys of Connecticut yield the usual field and orchard crops of the Northern States.

Tobacco is extensively cultivated. In the highlands, which are best adapted to grazing, hay and dairy products are the staples. Garden vegetables and seeds are extensively raised. Grain is not produced in sufficient quantities for home consumption.

The primitive forests of Connecticut have been cleared off; but there are still considerable tracts of woodland, and the interest of the people in tree-planting has kept most parts of the State well supplied with shade-trees, especially the elm, maple, chestnut, oak, and hickory.

10. Mining.—Iron of a very superior quality is found in the north-western part of the State. Much of the iron used by the colonists during the Revolution came from the mines there.

Extensive beds of limestone, which afford white and green marble, and, after burning, the quicklime of commerce, are found in the western part of the State. Valuable quarries of freestone are worked in the Connecticut Valley.

In eastern Connecticut and along the south-east coast are extensive strata of granite, valuable for building purposes, and mica slate used for flagging. Potters' clay is abundant throughout the valleys. Copper, cobalt, and lead are found in some localities. Barytes, used in making paint, is obtained in Cheshire.

11. Commerce.—The domestic and inter-state commerce is extensive, being greatly facilitated by numerous railroads and steam-boat lines. The State has about 1200 miles of railroad track and 13,000 miles of wagon road.

Questions.—What is said of the soil of the valleys? Of the hills? What of the climate? What is the rank of Connecticut as a manufacturing State? What is said of the ingenuity of the people? What textile fabrics are manufactured? Name some of the hardware manufactures. What industry is next to manufacturing? Name some of the most important farming products. Where is iron obtained? What minerals are found in the western part of the State? In the eastern and south-eastern sections?



FARM SCENE.

The foreign commerce is mostly carried on through New York city. Manufactured goods are the principal exports. There are five customs districts. The ports of entry are Fairfield, Middletown, New Haven, New London, and Stonington.

Many of the coast towns are engaged in fisheries. New London sends out a large number of men to the seal fisheries of Alaska; a few whalers are also fitted out at this port.

13. Inhabitants.—The inhabitants are descendants of the early English settlers, together with a large proportion of foreigners,—French, Irish, and Germans,—who are drawn hither by the employment which the manufactories offer.

14. Government.—The government of the State consists of three departments: the legislative, the judiciary, and the executive.

The *legislative power* is vested in a general assembly, consisting of an upper house or senate, of twenty-four members, elected from the State senatorial districts for a term of two years; and a lower house of two hundred and forty-six members, representatives from all the towns, elected for two years.

The *State Judiciary* consists of the Supreme Court of Errors, the Superior Court, four Courts of Common Pleas, and some District Courts. The judges of these Courts are elected by the General Assembly. There are also Probate Courts, for the settlement of estates, presided over by judges of probate elected by the people; also Police and Justice Courts, for the administration of local affairs.

The *Executive Officers* are a Governor, a Lieutenant-Governor, a Treasurer, a Comptroller, and a Secretary of State. They are elected for two years.

Connecticut has two Senators and four Representatives in the United States Congress.

15. Education.—Connecticut was early distinguished for the excellence of her educational system. Schools were established by the first settlers soon after their arrival, and these have been maintained and steadily improved ever since.

Questions.—What other important manufactures has Connecticut? What is meant by "Yankee Notions"? What is said of the relative importance of some of her manufactures? Agriculture? What is said of domestic commerce? Foreign commerce? Exports? Ports of entry? In what is New London engaged? Inhabitants? Government? In whom is the legislative power vested? Of what does the judiciary consist? What are the executive officers? What is said of the schools?

Besides the public schools there are many private and endowed institutions. The *Morgan School*, at Clinton; the *Norwich Free Academy*; the *Hopkins Grammar School*, at New Haven; the *Episcopal Academy*, at Cheshire; and the *Connecticut Literary Institute*, at Suffield, are of this kind.

Colleges and Professional Schools.—Yale University, at New Haven, is one of the oldest and best endowed institutions of learning in the country. Wesleyan University and the Berkeley Divinity School are at Middletown; and Trinity College and the Theological Institute at Hartford. The first law-school in the United States was founded at Litchfield, in 1784.

Benevolent and Reformatory Institutions.—Among the benevolent institutions of the State are the Asylum for the Deaf and Dumb, at Hartford, the first ever established in America, two asylums for the insane, and a school for imbeciles.

At Middletown is the Industrial School for girls, and at Meriden the Reform School for boys. The State Prison is at Wethersfield.

16. History. — Settlement.—The first Europeans who entered Connecticut were probably the Dutch, who established a trading-post at the present site of Hartford, in 1633. Another trading-post was begun soon after at Windsor, by some men from the Plymouth Colony. The first actual colonists were the members of the congregation of Rev. Thomas Hooker, who, in 1635 and '36, settled at Hartford, Windsor, and Wethersfield, naming their colony Connecticut.

In 1635 the real proprietors of the Connecticut grant sent a party of settlers, who established themselves at Saybrook, and in 1638 the New Haven colony was founded by a party of English Puritans. The founders of Saybrook relinquishing their scheme of colonization, their grant was bought by the Connecticut colony, which thus (1644) came into possession of all the land "from Narragansett Bay on the east, to the South Sea on the west," a tract seventy miles wide, and one-eighth the circumference of the earth in length.

17. The Constitution.—Soon after the settlement of the Connecticut colony, its people came together and framed a Constitution, "the first one ever written out as a complete form of civil order in the New World, and embodying all the essential features of the Constitutions of the American States and of the Republic itself, as they exist at the present day."

This Constitution was wise and liberal, and not only were the people at that time glad to live under it, but their descendants are prouder of it than of anything else in connection with their history.

18. The Charter.—On account of their obscurity the people of Connecticut were for a long time allowed to govern themselves, though they had no legal right to do so. When the colony became larger, their governor, John Winthrop, was sent to England to ask the king, Charles II., to give them a charter such as was usually given the colonies as a basis of government.

The King not only consented to do this, but he also made it include all the privileges provided in their Constitution, and secured to them all the land named in their grant. The terms of this charter and its history have made it very dear and sacred to the people.

19. Indian Wars.—The first war with the Indians broke out in 1637. The colonists had suffered terrible outrages from the ferocious tribe of Pequots. At last an expedition was sent against the savages, which surprised them in their chief fort, near what is now Stonington, and in the fierce battle which ensued the tribe was almost wholly exterminated.

In the Revolution, Connecticut furnished more men, in proportion to her population, and more aid, in proportion to her wealth, than any other State; and her war governor, Jonathan Trumbull, the trusted friend and adviser of Washington, has given the *sobriquet* "Brother Jonathan" to the entire country.

20. Political Divisions.—Connecticut has eight counties, and one hundred and sixty-seven towns, including within their limits ten cities and eighteen boroughs.

21. Towns.—*New Haven*, the largest city, and formerly one of the capitals, lies in the south-western part of the State, at the mouth of the Quinnipiac River. The city lies upon a low plain, flanked on either side by abrupt hills, known as East and West Rocks. The streets are beautifully shaded by elm trees, and there are several parks. New Haven is extensively engaged in manufactures and commerce, and is distinguished as the seat of Yale University.

The leading manufactures are carriages, rubber goods, fire-arms (the Winchester rifles), clocks, cars, engines, musical instruments, cutlery, fish-hooks, and needles.

There is a line of daily steamers to New York, and an extensive coasting and West India trade.

The public schools of New Haven are superior. The Hopkins Grammar School, for the purpose of fitting boys for college, was founded in 1660.

Yale University, founded by the people of Connecticut, began in 1701, at Saybrook, with one student. In 1718, it was removed to New Haven and named Yale College, in honor of Elihu Yale, who had made several donations towards its support.

22. Hartford, the capital, is situated on the Connecticut River, fifty miles from its mouth. It is the centre of trade for a large agricultural district, and by means of its river communication, and of five railroads which centre there, carries on an extensive commerce.

Hartford is noted for the manufacture of machinery and fire-arms, of which the Gatling gun is the most celebrated. The amount of insurance business is proportionally greater than that of any other city in the United States.

This city is noted for its elegant buildings, both public and private. The new State Capitol, built of white marble and beautifully located in Bushnell Park, is the finest building in New England.

The schools of Hartford are superior. The buildings of Trinity College are a fine example of the old English style of architecture. The Wadsworth Athenæum contains three valuable libraries and a gallery of paintings.

23. Bridgeport, eighteen miles west of New Haven, is noted for its rapid growth. The most important manufactures are sewing-machines, fire-arms, metallic cartridges, carriages, saddles, harnesses, hardware, and steam-engines.

It has extensive railroad communications, a line of daily steamers to New York, and is considerably engaged in the coasting trade and fisheries. Fine views of the Sound and of the surrounding country may be had from Seaside Park and from the hills which surround the city.

24. Norwich is situated at the junction of the Yantic and Shetucket Rivers. The city, built in a series of terraces, and thickly shaded, presents a very picturesque appearance.

Norwich is the centre of an agricultural district, and has convenient river and railroad facilities. It has manufactures of cotton and woollen goods, glass, paper, and machinery.

25. Waterbury is situated on the Naugatuck River, and at the junction of the Naugatuck and New York and New England Railroads. It is noted for the great variety of its manufactures, and is sometimes spoken of as "the place where everything is made."

The principal interest is in composition metals, bronze, German-silver, and brass, more of the latter being produced here than in any other place in the United States. Most of the pins used in the country are made in the Naugatuck Valley. Waterbury has extensive manufactories of clocks, buttons, iron-castings, and cutlery. It has excellent schools and a free library.

26. Meriden is a very thriving city near the centre of the State, and is noted for its metallic manufactures.

Meriden exceeds any other place in the world in the production of silver-plated ware. In this and in fine cut glass some of its productions are highly artistic.

27. New London is one of the oldest cities in the State, having been founded by John Winthrop, Jr., in 1644. Its harbor is one of the best in the country, being three miles long, five fathoms deep, and seldom obstructed by ice. It is defended by Forts Trumbull and Griswold. A United States Navy-Yard is located here.

New London was built up by the whale-fishery, in which industry it ranked next to New Bedford. At the present time the chief interest is in the Alaska seal-trade, cod and halibut fisheries, coasting, and some manufactures.

The city was burned by Arnold during the Revolution, and blockaded by the British in the war of 1812. It contains some interesting buildings, one of which is a mansion built by the labors of the French refugees from Acadia.

28. New Britain is the youngest city in the State, having been incorporated in 1871. It is without natural advantages, and owes its prosperity to the enterprise of its citizens. In the manufacture of builders' and cabinet hardware it is second to no city in the United States. It manufactures also hosiery, cutlery, levels, planes, and rules. It is distinguished as the birthplace of Elihu Burritt. The State Normal School is located here.

29. Middletown is one of the oldest cities in the State. It is favorably situated for inland trade and river commerce.

Middletown formerly had a very thriving trade with the East and West Indies, but this was destroyed in the war of 1812, and the place has never recovered its old business importance. There are, however, considerable manufactures of pumps, builders' and farmers' hardware, silver-plated ware, machinery, and textile fabrics.

30. South Norwalk is situated on Long Island Sound, west of Bridgeport. It has a convenient harbor.

The manufactures are paper, felt, woollen goods, and hardware. Oysters of fine size and flavor are abundant.

31. Stamford is a large and wealthy town in south-western Connecticut. Having a pleasant and healthful location, and being conveniently near the city of New York, it has attracted a large number of business men, who have established their homes there. The superior improvements of the borough of Stamford are largely due to this class of citizens.

Local enterprise has built up considerable industries, the principal of which are the manufactures of Yale locks, billiard-tables, carriages, and drugs.

32. Danbury.—This town is noted for the production of hats, an industry which was established there in 1780, and in which, at the present time, it excels any other place in the United States.

This town is fortunate in having excellent schools, a very fine public library, a healthful location, and beautiful scenery. During the Revolution, American military supplies were stored at Danbury, to destroy which the British sacked the town in 1777.

33. Derby.—This town, lying at the junction of the Housatonic and Naugatuck Rivers, contains the boroughs of Ansonia and Birmingham, and the village of Derby.

The manufactures are clocks, machinery, tile-pipes, woollen goods, and pins. There are several rolling mills and foundries. It has convenient river and railroad facilities.

34. Greenwich is the most south-western town in the State. Its salubrious air, pleasant scenery, and nearness to New York, have made it a favorite place for country residence, especially in summer.

35. Vernon, in Tolland County, has excellent water-power and convenient railway facilities. Rockville is a large village in this town. The manufactures are cotton and woollen goods, hosiery, thread, sewing-silk, and envelopes.

36. Enfield contains the two villages of Thompsonville and Hazardville.

At the former place over two and a half million yards of carpeting are annually produced. The latter contains some of the most extensive gunpowder works in the world. The community of Shakers in Enfield raise large quantities of garden seeds. The bridge across the Connecticut between Enfield and Suffield is the first ever thrown across that river in this State.

37. Stonington is the most south-eastern town in the State.

Stonington borough has a good harbor, and is a port of entry. It is on the railroad from New York to Boston, and is connected with New York by steamboat lines. It has some commerce, and an active interest in the seal-trade and coast fisheries.

It is a pleasant sea-side resort. Along the Mystic River, in the western part of this town, are woollen mills and shipyards. Stonington was three days bombarded by the British in 1812.

38. Winchester is the most populous town in Litchfield County. It contains the two villages of Winsted and West Winsted, the latter a borough.

The manufactures are scythes and hoes, carriage findings, silver-plated goods, clocks, cutlery, and leather. This place lies at the junction of the Naugatuck and Connecticut Western Railroads, and has good water-power.

39. Killingly is the most populous town in Windham County. It contains several factory villages and the borough of Danielsonville. It has large cotton and woollen mills.

40. Fairfield is a beautiful coast town in south-western Connecticut. It has manufactures of paper and prints.

41. Windham contains the village of Windham and the borough of Willimantic. The latter, a busy manufacturing centre, produces more thread than any other place in the country. Three railroads centre there.

42. Groton lies between the Thames and Mystic Rivers. It is engaged in the coasting trade, fisheries, and ship-building. It has cotton-mills, brass- and iron-foundries, and two granite quarries.

43. Portland is on the Connecticut River, opposite Middletown. It is noted for its valuable quarries of brownstone.

44. Plainfield contains several factory villages. The junction of the New York and New England with the Norwich and Worcester Railroad is at this place.

45. Southington.—This is one of the old towns of the State, and is pleasantly situated among the Blue Hills. It manufactures hardware, machinery, carriages, and paper.

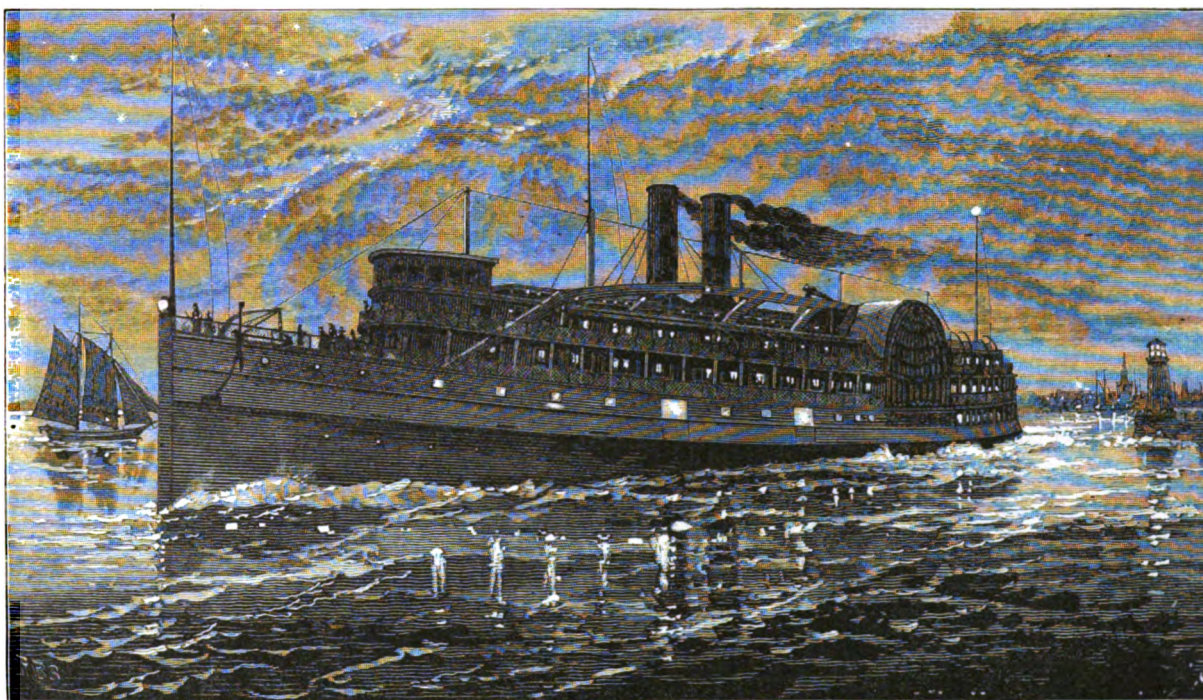
46. Manchester manufactures cotton and woollen goods and hosiery. The silk-works at South Manchester are the most extensive in the United States. The manufacturers have provided this village with an excellent school, and are constantly engaged in improving and beautifying the place.

47. The following places have each a population of over 3000, and thriving industries:

48. Putnam manufactures cotton, woollen, and shoes; **Thomaston**, clocks and cutlery; **New Milford**, vegetable ivory goods, and packs great quantities of tobacco; **Thompson**, woollen goods and twine, and edge-tools.

49. Bristol is a picturesque hill-town. It was one of the first in the manufacture of clocks, in which industry it ranks first in the State. It has foundries, machine-shops, and hosiery works.

50. Newtown, an agricultural town, manufactures also hats and rubber goods; **Wallingford**, plated table-ware, buttons, book-binding; **Glastonbury**, farming, cotton and woollen goods, fire-arms, spectacles, and plated goods.



STEAMER LEAVING STONINGTON FOR NEW YORK.

51. Sprague has cotton, woollen, and paper mills; the manufacture of cotton goods is of special importance. **Milford** manufactures straw goods, and has quarries of fine green marble; it is a pleasant summer resort. **Stafford** includes several factory villages and the borough of Stafford Springs.

52. Colchester is a beautiful rural town, the seat of Bacon Academy; manufactures rubber goods and paper. **Westport** manufactures leather, axes, and stoves. **Salisbury** is a picturesque town in the north-western part of the State. It has iron-ore of superior quality. It has blast furnaces and foundries, and manufactures car-wheels, water-wheels, cutlery, and machinery.

53. Suffield, a rich farming town, produces large crops of tobacco. It is the seat of the Connecticut Literary Institute. **Litchfield** is the county-seat of Litchfield County. Its elevation, pure air, fine views, broad, shady roads, and convenient railroad make it a favorite summer resort. **New Hartford**, on Farmington River, produces cotton goods and machinery.

54. Stratford is a beautiful old town at the mouth of the Housatonic River. Its streets are broad and beautifully shaded. It contains the borough of West Stratford. **Hamden**, an agricultural town adjoining New Haven, manufactures brass and iron goods, sewing-machines, and fire-arms. **East Hartford** is interested in market-gardening and paper-making.

55. The villages of Connecticut, built by the sea-side, river-banks, and among hills, are justly praised for their beauty of location, their broad, shaded streets and ample commons, and their great number of comfortable and refined homes.

Questions on the Map and Text.

Position and Outline.—Bound Connecticut. From what does Long Island Sound separate the State? What large island near the mouth of the Thames? Where is Plum Island? Bradford's Island? Mason's Island? Falkner's Island? The Thimbles? Norwalk Islands? Name the principal harbors.

Where is Little Narragansett Bay? Niantic Bay? The Race? Where is Napatree Point? Goshen Point? Lyndes' Point? Sachem's Head? Name the Points at entrance of New Haven Harbor. What Point near the mouth of the Housatonic River? Near the mouth of the Saugatuck River?

Between what parallels is Connecticut? What States and Territories have their northern boundary on or near the same parallel as Connecticut? What countries of Europe does this parallel cross? What meridians cross Connecticut? What countries of South America lie directly south of Connecticut?

Surface.—Of what mountains are the highlands of western Connecticut a continuation? The highlands east of the Connecticut are a continuation of what? Where is Mount Tom? Mount Carmel? East Rock? West Rock? Haystack Mountain? Talcott Mountain?

Rivers.—What rivers cross the State? What is the principal river? Describe it. What is its principal branch in this State? Name three of the eastern branches. What river east of the Connecticut. What rivers unite to form the Thames? What is the Shetucket called in its upper course?

What is the principal river in the western part of the State? Describe it. What is its principal branch? The next largest? What river flows into New Haven harbor?

Many small rivers flow directly into the Sound: Which is the longest one west of the Housatonic? Between the Housatonic and the Quinnipiac? Between the Quinnipiac and the Connecticut? Between the Connecticut and the Thames?

What river forms part of the boundary between Connecticut and Rhode Island? What is the general direction of all the rivers? What, then, is the slope of the land?

Counties.—What counties border upon the State of New York? What counties border upon Massachusetts? What counties border upon Rhode Island? Upon Long Island Sound? What county in the north-western part of the State? In the north-eastern? South-eastern? South-western?

Commit to memory the counties in the following order (looking upon the map): Litchfield, Hartford, Tolland, Windham, Fairfield, New Haven, Middlesex, New London.

Towns.—Name the largest towns on the Connecticut River. Where is New Haven situated? What are the principal towns west of New Haven on the Sound? What two cities on the Thames? What is the principal town on the Sound east of the Thames? What city on the Naugatuck River?

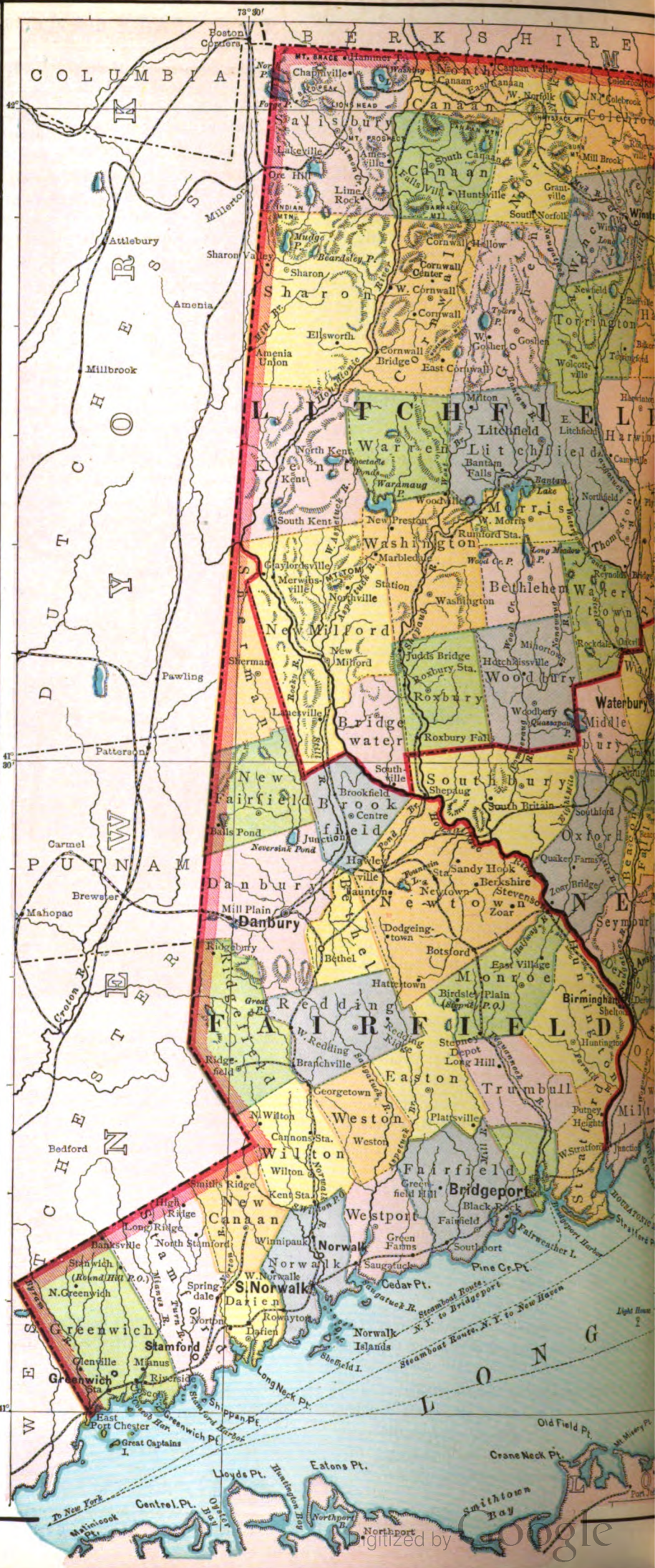
What town in the south-western corner of the State? In the north-western corner? The north-eastern? The south-eastern? What large town at the junction of the Housatonic and Naugatuck rivers? What town on the Connecticut noted for its quarries of free-stone? What is the shire-town of Litchfield County? Of Hartford County? Of Tolland County? Of Windham County? Of Fairfield County? Of New Haven County? Of Middlesex County? Of New London County?

Describe the position of the following towns:

<i>Hartford,</i>	<i>Meriden,</i>	<i>Greenwich,</i>
<i>New Haven,</i>	<i>Stamford,</i>	<i>Enfield,</i>
<i>Bridgeport,</i>	<i>New London,</i>	<i>Stonington,</i>
<i>Norwich,</i>	<i>New Britain,</i>	<i>Killingly,</i>
<i>Waterbury,</i>	<i>Danbury,</i>	<i>Vernon,</i>
<i>Norwalk,</i>	<i>South Norwalk,</i>	<i>Windham,</i>
<i>Middletown,</i>	<i>Derby,</i>	<i>Groton.</i>

Name the principal towns on the railway between New York and New Haven. Between New Haven and Hartford. New Haven and New London. Between Bridgeport and Winsted.

Through what port are the goods from foreign countries imported? Where do the manufactures and agricultural products find their chief market? Name the principal steamboat routes on Long Island Sound.

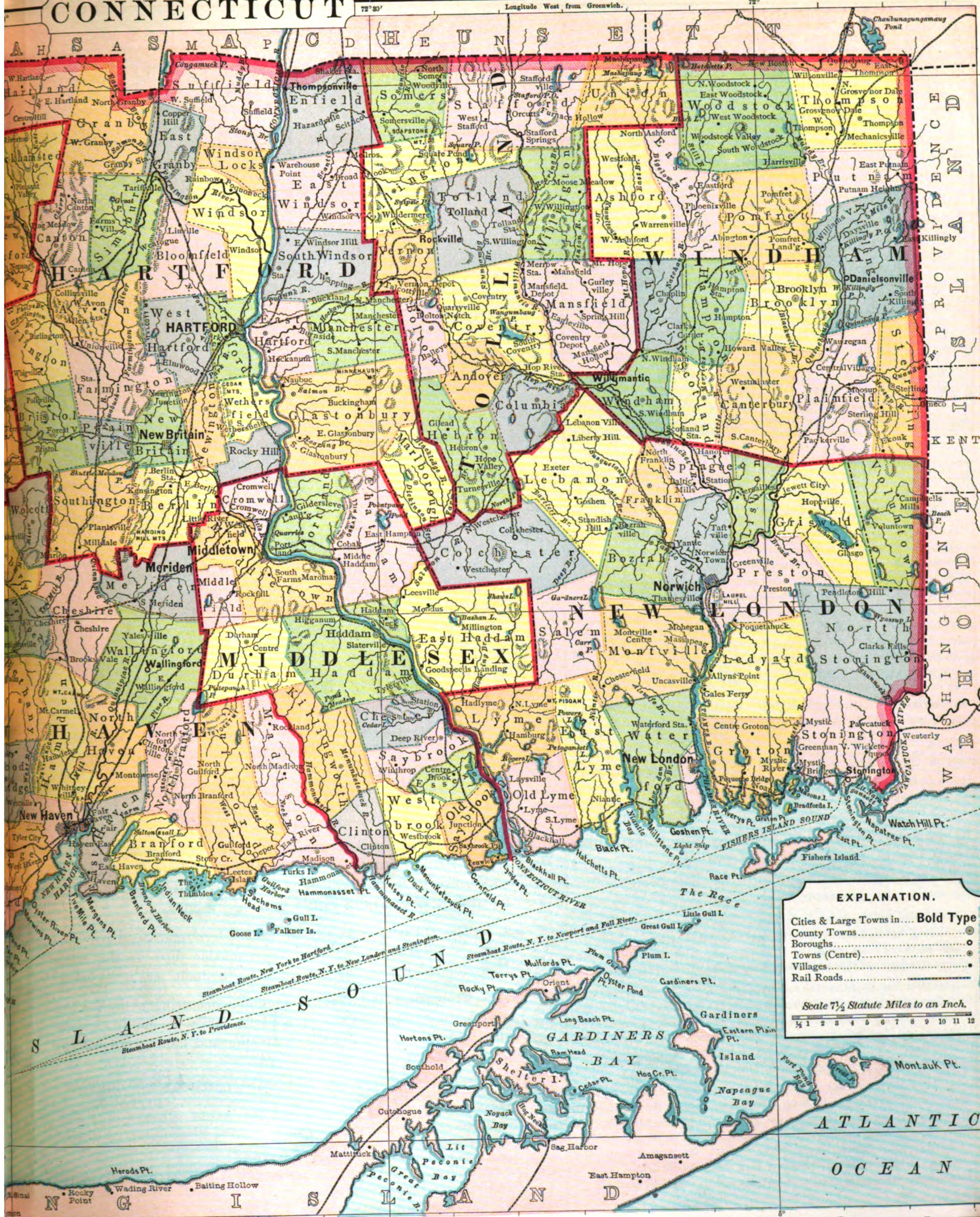


CONNECTICUT

72° 30'

Longitude West from Greenwich.

72°



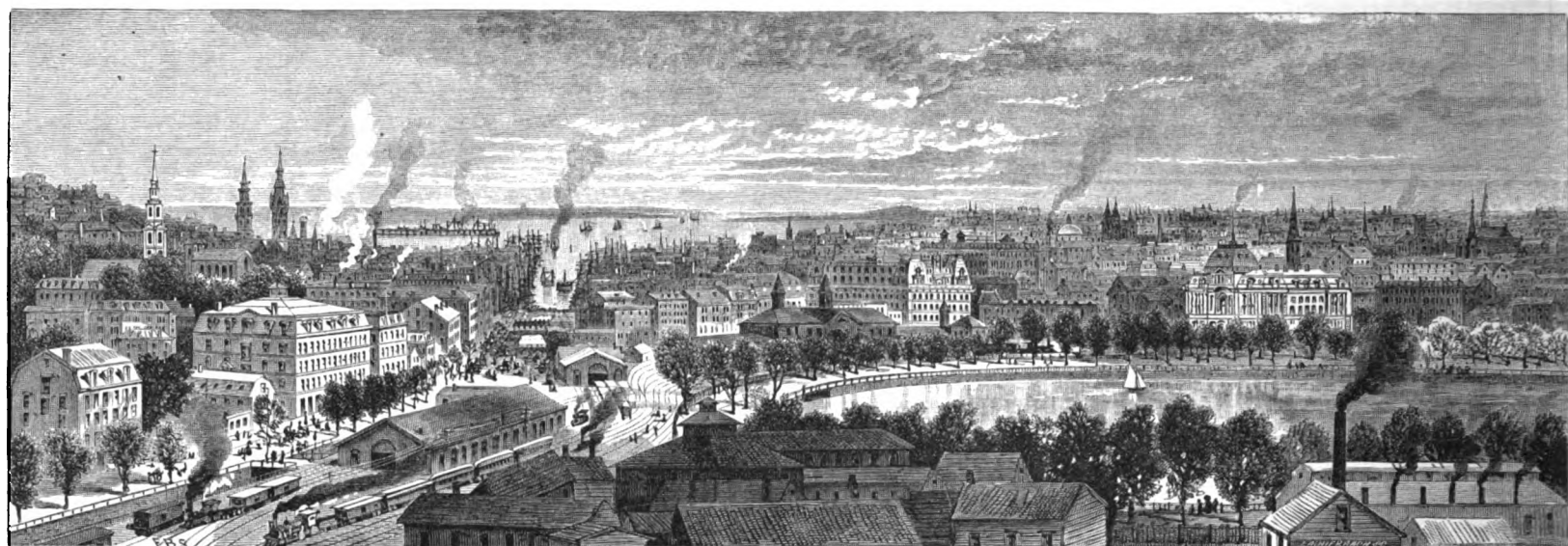
EXPLANATION.

Cities & Large Towns in... **Bold Type**
County Towns.....
Boroughs.....
Towns (Centre).....
Villages.....
Rail Roads.....

Scale $7\frac{1}{2}$ Statute Miles to an Inch.

$\frac{1}{2}$ 1 2 3 4 5 6 7 8 9 10 11 12

SPECIAL GEOGRAPHY OF RHODE ISLAND.



PROVIDENCE.

RHODE ISLAND, one of the original thirteen States of the Union and a part of New England, is the smallest and the most densely populated of any of the United States.

The length of the State from north to south is nearly fifty miles, and its greatest width is about forty miles. Its area is 1085 square miles, being about one-eighth that of Massachusetts, and one two-hundred-fortieth that of Texas.

[The area usually given is 1306 square miles, but this includes the surface of Narragansett Bay, which cannot properly be considered as part of the area of the State.]

The State derives its name from the island of Rhode Island in the eastern part of Narragansett Bay. It is the most fertile island in New England, and is said to have received its name from its resemblance to the isle of Rhodes in the Mediterranean Sea, which is remarkable for its fertility and salubrious climate.

The full name of the State is "State of Rhode Island and Providence Plantations."

2. Surface.—Although Rhode Island has no mountains nor many very high hills, yet the surface is quite broken in the northern and eastern portions. The hills are lower and less frequent in the central sections, and the southern part is quite level.

Mt. Hope in Bristol (once the home of King Philip), Diamond Hill in Cumberland, Woonsocket Hill in North Smithfield, and Hopkins Hill in West Greenwich, are among the highest elevations.

3. Coast and Islands.—The southern coast, bordering upon the Atlantic Ocean, is only about forty-five miles in length, but the various bays, inlets, and islands give the State nearly 350 miles of shore washed by tide-water.

West of Point Judith, which is the most important cape, the coast is low and sandy, having several fine beaches, the most celebrated being at Watch Hill. East of Point Judith the coast consists of alternate rocky cliffs and sandy beaches. The beaches at Narragansett Pier and Newport are among the most famous in the country.

Narragansett Bay, noted for the variety and beauty of its scenery, extends about thirty miles northerly into the eastern portion of the State, and contains many beautiful islands. The most important of these are Rhode Island, on which Portsmouth, Middletown, and Newport are situated; Conanicut and Gould Islands, forming the town of Jamestown; Dutch Island, which belongs to the United States; and Prudence, Patience, Hope, and Hog Islands, belonging to Portsmouth.

Along the shores of the bay and on some of the islands are numerous resorts for excursionists and favorite localities for summer residences. The most noted of these are Rocky Point (the most famous place for summer excursions in New England), Oakland Beach, Buttonwood Beach, and Narragansett Pier on the western shore; Silver Spring, Cedar Grove, Nayatt Point, Bristol, Tiverton Heights, and Little Compton on the eastern shore; Conanicut Park on Conanicut Island; and Newport, so celebrated for its elegant summer residences and its excellent sea-bathing.

Block Island, containing the town of New Shoreham, is situated in the Atlantic Ocean, ten miles S.S.W. from Point Judith, and is noted for its fisheries and pure sea air. It is a favorite resort for those who desire to enjoy the advantages of a sea voyage without its discomforts.

4. Harbors.—Newport harbor is one of the best in the world. It has all the requirements needed to make a good harbor, being commodious, safe, deep, and easily accessible.

Providence River (which is really but an estuary) is the outlet of the Woonasquatucket, Moshassuck, and Seekonk (Blackstone) rivers, and extends from the Cove near the central part of the city to Nayatt and Conimicut points, a distance of about eight miles, and together with the bay below, affords more than 40,000 acres of safe anchorage, with a depth of fifteen feet or more at low water.

The Barrington, Warren, and Seaconnet rivers are also navigable estuaries, and form good harbors for small vessels.

5. Rivers.—The rivers are of little importance for navigation, but they furnish abundant water-power, which has been improved to the fullest extent.

The only navigable rivers are the Seekonk as far as Pawtucket, and the Pawcatuck as far as Westerly. The other principal rivers are the Blackstone, Woonasquatucket, Pawtuxet, Pawcatuck, Usquepaug, and Wood.

6. Soil.—East of Narragansett Bay and on the islands the soil is very fertile. In the northern part of the State it is hard and rocky, except in the valleys, while in the central and southern portions it is generally rather light and sandy.

7. The Climate, especially in the eastern and southern portions, is generally milder and more equable than in the other New England States, being modified by the influence of the ocean.

8. Occupations and Productions.—Manufacturing is the leading occupation of the people; agriculture ranks second in importance, and fishing third, while quarrying and mining are carried on to some extent.

1. Manufactures.—In proportion to its area, no State exceeds Rhode Island in the extent and value of its manufactures. Cotton manufactures of all kinds, including dyeing, bleaching, and calico-printing, rank first; woollen manufactures of every description second; and iron manufactures, including steam-engines, locomotives, machinery, fire-arms, screws, and tools of various kinds, rank third. There are also extensive manufactories of jewelry and silverware, rubber and leather goods, chemicals, fish oil and guano, hair-cloth, furniture, carriages, brass, copper and tinware, patent medicines, packing-boxes etc.

2. Commerce.—The foreign commerce, although not extensive, is steadily increasing, especially with the West Indies and Europe. The domestic commerce is very important, employing many sailing vessels, (especially in the coal trade,) nearly a dozen lines of steamers, and as many lines of railway.

3. Fishing.—Cod, mackerel, scup, tautog, bass, bluefish, herring, and shad are the principal food fishes. Menhaden are seized for the manufacture of oil and guano. The shell fisheries are important and include clams, oysters, scallops, and lobsters.

4. Agricultural Productions.—Hay, corn, potatoes, and apples; peas, beans, onions, and other market-garden products; and strawberries and various small fruits, are raised quite extensively. Rhode Island eggs and poultry are justly famous.

5. Forests.—The value of the forest products, including wood, timber, charcoal, etc., is about a quarter of a million dollars annually.

6. Minerals.—Few places of equal area in the Union contain so great a variety of minerals as Rhode Island, although little effort has yet been made to develop its mineral resources. *Anthracite Coal* underlies nearly all of the eastern part of the State, and at the mines in Portsmouth and Cranston it improves in quality as the depth increases. *Iron* of a good quality has been found in some localities. *Granite* is quarried in various places, and the Westerly granite is celebrated for its fine texture and the beautiful polish which it takes. *Lime* of the best quality is burned from the limestone at Lincoln and Johnston. *Clay*, from which vast quantities of brick are made, is found in several places, the largest yards being at Nayatt in Barrington. *Gold, silver, copper, lead*, and some other minerals, are found in small quantities in several towns.

9. Railroads.—There are about 200 miles of railway in the State, affording ample facilities for travel and for transportation of freight.

The principal lines are the Stonington and Providence R. R.; New York and New England R. R.; Providence and Worcester R. R.; Providence, Warren and Bristol R. R.; Providence and Springfield R. R.; Boston and Providence R. R.; Old Colony and Newport R. R. There are ten other short roads in the State which are connections or branches of the main lines.

10. Education.—Rhode Island has an excellent system of free schools, for which the State makes an annual appropriation of \$90,000.

The State Board of Education consists of the Governor, Lieutenant-Governor, *ex officio*, and six other members elected by the general assembly for the term of three years. The State Commissioner of Public Schools is the executive officer. Each town and city has its local school committee and superintendent.

Brown University, founded in 1764, at Providence, is one of the oldest and best colleges in the country. The *State Normal School*, for the professional education of teachers, holds a high rank among similar institutions in New England.

The *Academies, Denominational, and Private Schools* are numerous, excellent, and well supported. The *Benevolent Institutions*, such as hospitals, asylums, etc., are extensive and well managed.

11. Government.—The Legislature or General Assembly is composed of a Senate, which consists of thirty-six members (one from each town and city), and a House of Representatives, consisting of seventy-two members, who, with the Governor and Lieutenant-Governor, are elected annually by the people.

The Governor is inaugurated and the Legislature organized each year at Newport, on the last Tuesday in May, called "election day." The Legislature also holds an adjourned session at Providence each year, which generally meets in January, and is known as the "January session."

12. Political Divisions.—The State has five counties, Providence, Bristol, Newport, Kent, and Washington; and four cities (Providence, Newport, Pawtucket, and Woonsocket) and thirty-two towns.

The towns are the smallest political divisions. In most of the States except New York and the New England States they are called Townships—the towns in those States corresponding to the villages in New England.

13. Towns.—Nearly all the towns in Rhode Island owe their prosperity to the extent and variety of their manufactures. In all portions of the State, wherever the water-power can be made available, manufactories have been built and flourishing villages have grown up along the river-banks.

Providence, one of the capitals of the State, and the second city of New England in population, is situated at the head of Providence river, and is noted for the culture, enterprise, and wealth of its inhabitants. It is the starting-point of six important railroads, and the commercial metropolis not only of Rhode Island but also of the adjacent portions of Massachusetts and Connecticut. Probably no other city of its size has such extensive and varied manufactures. It has more than one hundred manufactories of jewelry; the largest manufactories of silver-ware and screw in the world; while locomotives, sewing-machines, and other machinery, fire-arms, stoves, nails, &c., are largely produced. Many of the mills, print-works, machine shops, &c., scattered throughout the State, are owned by citizens of Providence. The city contains many substantial and elegant public buildings and private residences and has the finest system of water-works and sewers in the country.

Newport, also one of the capitals, is situated at the southern extremity of the island of Rhode Island. It has long been celebrated as the summer residence of many of the cultivated, refined, and wealthy from all parts of America who, attracted by the society, the delightful climate, and invigorating sea breezes, have erected many elegant residences and seaside cottages.

The "Old Stone Mill,"—"the only thing on the Atlantic shore," says Higginson, "which has had time to forget its birthday,"—is a never-failing source of interest to tourists. Fort Adams, one of the largest and strongest fortifications in the Union, is at the entrance of the harbor, and the United States torpedo station is on Goat Island, directly front of the city.

Pawtucket is said to produce a greater variety of manufactured articles than any other city in New England. The first manufactory of cotton-cloth by water-power in America was built here, in 1790, by Samuel Slater, who has been styled "the father of American cotton manufacturing," and the town still ranks first in the State in the production of cotton goods.

Woonsocket ranks second among the cities in the manufacture of woollen goods, and third in cotton manufactures. *Lincoln* produces cotton goods to the value of more than \$3,250,000 annually, while the yearly production of *Warwick* exceeds \$1,500,000, and that of *Warren* and *Cumberland* each exceeds \$1,000,000. *Smithfield, Scituate, and Coventry* each produce nearly a million dollars' worth. *Westerly* has extensive granite quarries and woollen mills.

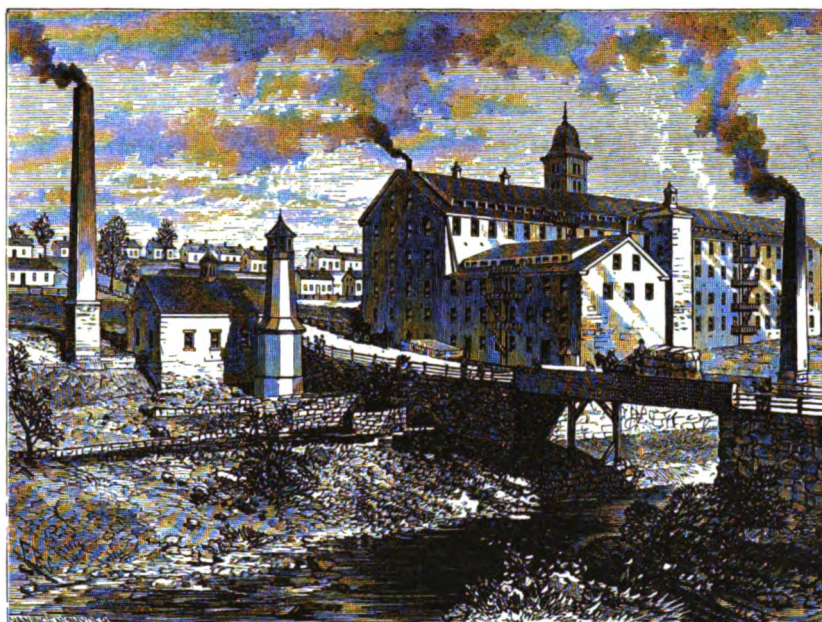
Burrillville, North Smithfield, North Kingstown, and South Kingstown are largely engaged in the manufacture of woollen goods.

Bristol manufactures rubber goods of all kinds, and has many beautiful summer residences. *Barrington* and *East Providence* are agricultural towns, and are also favorite places of residence in summer for Providence merchants.

Cranston has the largest calico print-works in the Union, and produces large quantities of market-garden vegetables. *Johnston* and *North Providence* also raise many vegetables for the Providence market.

Tiverton, Portsmouth, Middletown, Little Compton, and Jamestown are agricultural towns, and send large quantities of their productions to the Newport, Providence, and Fall River markets. Fishing is also carried on to a considerable extent.

Foster, Charlestown, Exeter, and West Greenwich are also agricultural towns. *East Greenwich, Glocester, Richmond, and Hopkinton*, besides being agricultural towns, are quite extensively engaged in manufacturing.



A MANUFACTURING VILLAGE.



14. History. — Settlement. — It is supposed that the Northmen visited Rhode Island in the tenth century; but the first permanent settlement in the State was made at Providence, in 1636, by Roger Williams and five companions.

Roger Williams was a young minister who was banished from Salem, Mass., by the General Court of that colony, for "divulging new and dangerous opinions" against the authority of the magistrates and churches. He bought the land for his colony from the Indians, reserving to himself no more land and no more power than was granted to the other colonists, and gave the name "Providence" to his new home, as a memorial of "God's merciful Providence to him in his distress." "Liberty of conscience" was the fundamental law of his colony, and this was the first settlement in America in which full religious liberty was allowed.

In 1638, William Coddington and eighteen others commenced a settlement at Portsmouth, and in 1639 founded Newport. Warwick was settled three years later.

A charter was obtained from the English Parliament which united all these colonies under one government in 1644. This charter was annulled a few years later, and in 1663 King Charles II. granted another charter for "the Colony of Rhode Island and Providence Plantations," in accordance with which Rhode Island was governed until 1842, when, after a brief internal struggle, called the Dorr War, the present State constitution was adopted.

Indian Wars. — Rhode Island suffered less than many of the colonies from troubles with the Indians, on account of the kind and sagacious policy of Roger Williams.

The most decisive battle of King Philip's War, known as "the swamp fight," was fought at South Kingstown, in 1675. Providence was burned by the Indians in 1676. The war was terminated by the death of King Philip, who was killed near Mount Hope, in August of the same year.

Revolutionary War. — In the struggle for independence Rhode Island took a prominent part. During this war nearly every male citizen between the ages of sixteen and sixty bore arms.

The most prominent officers from this State were Esek Hopkins, who, under the title of "Admiral," was the first commander in the American navy, and Gen. Nathanael Greene—"next to Washington in ability and in the esteem of the nation."

The first bloodshed preceding the war occurred in 1772, when the British war-schooner Gaspee was captured and burned in Providence River.

Some of the other noticeable events of the war which happened in Rhode Island were the capture of the British General Prescott at Portsmouth, in 1777; the battle of Rhode Island, in 1778, which Lafayette pronounced "the best fought action of the war;" the evacuation of Rhode Island by the British, in 1779; and the arrival of the French fleet and army, in 1780.

Rhode Island adopted the Federal Constitution in 1790.

The Civil War. — Rhode Island was one of the first States to supply troops for the protection of the National capital, and, with one exception, sent more soldiers into the field during the war, in proportion to its population, than any other State.

Her public men, from the Declaration of Independence to the present time, have always been prominent in the councils of the nation, and have been distinguished for patriotism, statesmanship, and integrity of character.



NEWPORT.

PERRY MONUMENT AND OLD STONE MILL.

Questions on the Text.

What is Rhode Island? Give its length, width, and area. Give the origin of its name. What is its full name? Describe the surface. Name some of the principal elevations. What is said of the coast? Describe Narragansett Bay. Name some of the principal islands and summer resorts.

What is said of Block Island? Newport harbor? Providence River or estuary? Warren, Barrington, and Seaconnet estuaries? What is said of the rivers? Which are navigable? Name the most important. Describe the soil. The climate. What are the leading occupations of the people?

Name some of the most important manufactures. Some of the most important food fishes. What is said of the commerce? Fishing? What are the principal agricultural productions? What are forest products? Name the chief minerals. Principal railroads. What is said of the schools? Board of Education? Institutions of learning? Benevolent institutions? Government? Political divisions?

To what do the towns owe their prosperity? Describe Providence. Newport. Pawtucket, Woonsocket, and other towns. By whom was Rhode Island settled? Give an account of Roger Williams. When and where were the next three settlements? When were the charters obtained?

What is said of the Indian wars? Of the Swamp fight? Of the Revolutionary war? Who were the most prominent officers from this State? What noticeable events of this war happened in Rhode Island? When did the State adopt the Federal Constitution? What part did Rhode Island take in the Civil War?

Questions on the Map.

How is Rhode Island bounded? Describe the course of the Blackstone River. What towns and villages along its course? Into what does it flow? In like manner describe other rivers. In what direction, then, must the land slope in the northern, central, and southern sections?

Where is Greenwich Bay? Mount Hope Bay? Western Passage? Name some of the principal ponds in southern part of the State. Name several ponds in other parts of the State. Name and locate four principal points on the southern coast.

Bound each county, and name the towns in it. Bound the town in which you live, and give its dimensions. Its latitude and longitude. What important cities have about the same latitude? About the same longitude? What is the scale of this map? How far in a straight line, and in what direction, is Providence from Newport? From Pawtucket? From Westerly? From Cumberland? From Burrillville? From other towns? How far is Watch Hill from Diamond Hill?

Name the principal railroads in the State. Describe their course somewhat as you did the rivers. What railroad would you take in going to Providence? Newport? Woonsocket? Westerly? Bristol? Burrillville? Fall River? Taunton?

What places would you pass through in going directly north from your town? East? South? West? What towns border on Connecticut? On Massachusetts? On Narragansett Bay? On the Atlantic Ocean? What towns are on islands?

RHODE ISLAND

Map showing the state of Rhode Island, including major cities, towns, and geographical features. The map is divided into counties: Kent, Westerly, Smithfield, Pawtucket, Providence, Cranston, Johnston, Pawtucket, Westerly, and Kent. Major cities and towns include Providence, Pawtucket, Cranston, Johnston, Pawtucket, Westerly, Kent, and Smithfield. The map also shows the Atlantic Ocean, Narragansett Bay, and various islands and water bodies. A scale bar indicates 5 statute miles to an inch. An inset map shows Block Island, part of Newport County, with a scale of 10 statute miles.

MAP OF BLOCK ISLAND
Part of NEWPORT COUNTY
Same Scale as main Map

Scale 5 Statute Miles to an Inch

71° 50' Longitude West from Greenwich 71° 30'

A detailed map of the New Shoreham area. The map shows the coastline of New Shoreham, Vermont, with various points and mills labeled. The water bodies include Sachems Pond, Salt Pond, and Old Harbor. The land features include Sandy Point, Grove Point, Clay Head, Breakwater, Old Harbor Point, Pilot Hill, Beacon Hill, and Dickens Point. The map is titled 'NEW SHOREHAM' and includes a scale bar indicating 'Same Scale as main Map'.

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STATISTICS OF THE NEW ENGLAND STATES, CENSUS OF 1890.

STATES.	SCHOOL STATISTICS.										AGRICULTURAL STATISTICS.						
	Land Area In Sq. Miles.	Population.	Population per Sq. Mile.	Assessed Valuation.	Miles of Railroad 1891.	Children of School Age.	Pupils in Public Schools.	Teachers in Public Schools.	School Receipts.	School Expenditures.	Valuation of School Property.	LIVE STOCK.					
												Horses.	Milch Cows.	Oxen and other Cattle.	Sheep.	Swine.	Value of Live Stock.
Maine.....	29,895	661,086	22	\$235,599,888	1,340	212,064	143,113	5,534	\$1,145,646	\$1,238,898	\$3,328,743	99,657	175,949	157,386	542,248	79,043	\$19,787,750
New Hampshire.....	9,005	376,530	41	165,890,280	1,123	82,321	59,813	3,114	751,266	844,332	2,578,257	52,402	103,011	116,169	192,824	52,713	11,276,320
Vermont.....	9,135	332,422	36	157,192,280	960	78,264	62,260	3,045	711,144	650,392	1,525,480	84,353	234,642	160,053	362,112	17,888	17,865,383
Massachusetts.....	8,040	2,238,943	278	1,932,548,807	2,082	462,822	371,492	10,374	5,524,822	6,415,478	23,460,870	83,638	174,729	98,774	56,530	68,580	15,678,469
Rhode Island.....	1,085	345,506	318	275,456,822	212	64,960	52,774	1,378	1,091,994	825,072	2,537,595	10,258	24,041	22,194	98,774	56,530	15,678,469
Connecticut.....	4,845	746,258	154	349,725,773	1,010	176,384	126,505	3,266	2,015,667	2,123,839	6,063,269	51,276	134,897	102,143	40,759	55,598	12,995,619

PRINCIPAL AGRICULTURAL PRODUCTS.

	Whole Number of Farms.	Value of Farms.	Hay, Tons.	Potatoes, Bushels.	Oats, Bushels.	Indian Corn, Bushels.	Rye, Bushels.	Barley, Bushels.	Wheat, Bushels.	Buckwheat, Bushels.	Butter, Pounds.	Cheese, Pounds.	Milk, Gallons.	Wool, Pounds.	Tobacco, Pounds.	Orchard Products.	Hops, Pounds.
Maine.....	64,309	\$102,357,615	1,292,791	7,882,000	2,847,000	1,008,000	28,000	240,000	543,000	220,000	14,103,966	1,167,730	3,720,783	2,776,407	150	\$1,112,026	9,342
New Hampshire.....	32,181	75,834,389	644,729	3,072,000	862,000	1,259,000	33,000	81,000	140,000	56,000	7,247,272	807,076	5,739,128	1,060,589	140,000	972,201	23,555
Vermont.....	35,522	109,346,010	1,038,303	3,876,000	2,793,000	1,839,000	75,000	257,000	335,000	240,000	25,240,826	1,545,789	6,526,550	2,551,113	120,000	640,942	109,350
Massachusetts.....	38,406	146,197,415	674,365	3,632,000	598,000	1,868,000	213,000	69,000	10,000	65,000	9,655,587	829,528	20,662,953	299,089	3,893,000	1,005,303	9,895
Rhode Island.....	6,216	25,882,079	104,829	668,000	153,000	402,000	15,000	20,000	140	654	1,007,103	67,171	3,811,706	65,680	484	58,751	.....
Connecticut.....	30,598	121,063,910	564,419	2,677,000	780,000	2,014,000	348,000	14,000	30,000	134,000	8,198,995	826,195	12,289,893	230,133	9,603,000	456,246	.....

PRINCIPAL MANUFACTURED PRODUCTS.

	Value of Cotton Used.	Value of Manufactured Cotton.	Value of Manufactured Woollen Goods.	Mixed Textiles.	Dyeing and Finishing Textiles.	Boots and Shoes.	Leather Tanned.	Leather Curried.	Clothing.	Foundry and Machine Shop Products.	Paper.	Flour and Grist-Mill Products.	Lumber Sawed.	Rubber and Elastic Goods.	Furniture.	Cars, Carriages and Wagons.
Maine.....	\$6,234,901	\$13,319,363	\$6,686,073	\$1,009,937	\$1,107,616	\$5,823,541	\$7,100,667	\$2,612,350	\$1,130,381	\$2,232,675	\$2,170,321	\$3,966,023	\$7,933,868	.....	\$572,575	\$460,609
New Hampshire.....	8,629,063	17,953,493	8,113,839	2,703,281	1,568,100	7,230,804	2,115,617	2,161,734	731,389	2,024,656	1,731,170	2,542,784	3,542,012	.....	741,238	559,332
Vermont.....	458,607	855,864	3,217,807	1,277,003	198,200	1,084,503	530,337	.....	783,828	1,237,484	3,038,688	3,258,816	.....	.....	335,522	.....
Massachusetts.....	31,107,154	72,289,518	45,099,203	13,043,829	9,482,939	95,900,510	13,556,721	23,282,775	19,922,700	23,035,604	15,188,196	8,774,049	3,120,184	\$4,206,465	6,041,618	4,048,141
Rhode Island.....	10,457,770	22,875,111	15,410,450	2,718,822	6,874,254	638,000	227,125	1,980,330	6,281,707	.....	1,137,990	240,570	2,217,000	.....	840,437	301,259
Connecticut.....	6,281,939	16,009,771	16,892,284	5,919,505	464,800	2,211,385	146,750	86,950	2,210,159	6,339,599	4,337,550	2,964,134	1,076,485	1,710,761	688,168	2,605,591

SPECIAL MANUFACTURED PRODUCTS.

	Brick and Tile.	Ship-Building.	Canned Goods.	Hosiery.	Marble and Stone Work.	Agricultural Implements.	Hardware.	Soap and Candles.	Printing and Publishing.	Liquors, Malt.	Firearms.	Silk and Silk Goods.	Clocks and Watches.	Musical Instruments, Organs and Pianos and Materials.	Persons employed.	Value of Products.
Maine.....	\$310,958	\$2,909,846	\$1,402,100	.....	.....	\$661,445	.....	.....	\$1,606,098	.....	.....	.....	.....	.....	11,071	\$3,614,178
New Hampshire.....	282,725	30,070	.....	.....	.....	.....	.....	.....	264,750	\$1,265,477	.....	.....	.....	.....	414	176,684
Vermont.....	17,800	.....	2,080,470	595,270	1,303,790	718,455	.....	.....	7,757,260	5,112,227	\$1,158,227	\$3,764,260	\$1,915,913	\$680,800	.....	.....
Massachusetts.....	1,322,628	2,281,666	.....	2,483,596	2,594,182	1,670,242	\$737,400	\$4,489,555	.....	.....	.....	.....	.....	2,354,243	20,117	8,141,750
Rhode Island.....	.....	517,041	1,367,672	5,650,133	374,900	.....	254,243	.....	674,025	398,743	991,111	.....	.....	.....	2,310	880,915
Connecticut.....	299,194	767,660	.....	2,432,271	419,948	719,627	10,374,293	309,578	1,111,188	533,753	2,479,398	5,881,000	3,016,717	.....	3,131	1,456,866

FISHERIES.

POPULATION OF THE COUNTIES AND PRINCIPAL CITIES AND TOWNS OF THE NEW ENGLAND STATES.

MAINE.			NEW HAMPSHIRE.			VERMONT.			MASSACHUSETTS.			RHODE ISLAND.			CONNECTICUT.		
Counties. 1890.			Counties. 1890.			Counties. 1890.			Counties. 1890.			Counties. 1890.			Counties. 1890.		
Androscoggin.....	48,968	South Berwick.....	3,434	Belknap.....	20,321	Addison.....	22,277	Barnstable.....	29,172	Medford.....	11,079	Bristol.....	11,428	New Haven.....	81,298		
Arroostook.....	49,589	Fallowell.....	3,207	Carroll.....	18,124	Bennington.....	20,448	Berkshire.....	81,108	Everett.....	11,068	Kent.....	26,754	Hartford.....	53,230		
Cumberland.....	90,949	Kennebunk.....	3,181	Cheshire.....	29,579	Caledonia.....	23,436	Bristol.....	186,405	Weymouth.....	10,866	Newport.....	28,552	Bridgeport.....	48,866		
Franklin.....	17,053	Paris.....	3,172	Coos.....	23,211	Chittenden.....	35,389	Dukes.....	4,369	Beverly.....	10,821	Providence.....	255,123	Waterbury.....	28,646		
Hancock.....	37,312	Lisbon.....	3,150	Grafton.....	37,217	Essex.....	9,511	Dorchester.....	299,995	Clinton.....	10,424	Washington.....	23,649	Meriden.....	21,652		
Kennebec.....	57,012	Richmond.....	3,120	Hillsborough.....	92,247	Franklin.....	29,755	Franklin.....	38,610	Hyde Park.....	10,193			New Britain.....	19,007		
Knox.....	31,473	Presque Isle.....	3,082	Merrimack.....	49,435	Grand Isle.....	3,843	Hampden.....	135,713	Peabody.....	10,158			Norwalk.....	17,747		
Lincoln.....	21,996	Thomaston.....	3,046	Rockingham.....	49,650	Lamoille.....	12,831	Hampshire.....	51,859	Westfield.....	9,805			Danbury.....	16,552		
Oxford.....	30,586	Bucksport.....	3,009	Strafford.....	38,442	Orange.....	19,575	Middlesex.....	431,167	Amesbury.....	9,798			Norwich.....	16,156		
Penobscot.....	72,865	Gorham.....	2,921	Sullivan.....	17,304	Rutland.....	22,101	Nantucket.....	3,268	Frammingham.....	9,798			Siamford.....	15,700		
Piscataquis.....	16,134	Kittery.....	2,888			Washington.....	45,397	Plymouth.....	92,700	Adams.....	9,213			New London.....	13,757		
Sagadahoc.....	19,452	Bristol.....	2,864			Windham.....	26,547	Suffolk.....	484,780	Natick.....	9,118			Ansonia.....	10,342		
Somerset.....	32,627	Orono.....	2,821							Milford.....	8,780			Greenwich.....	10,131		
Waldo.....	27,759	Dexter.....	2,790							Spencer.....	8,747			Middletown.....	9,013		
Washington.....	44,482	Norway.....	2,732							Melrose.....	8,529			Willimantic.....	8,648		
York.....	62,829	Vinal Haven.....	2,665							Gardner.....	8,424			Manchester.....	8,222		
		Bridgeton.....	2,617	Manchester.....	44,166					Marblehead.....	8,202			Rockville.....	7,772		
		Frenchville.....	2,605	Nashua.....	19,311					Watertown.....	7,703			Bristol.....	7,382		
		Pittsfield.....	2,560	Concord.....	17,000					Southbridge.....	7,655			Enfield.....	7,199		
		Saint George.....	2,503	Dover.....	12,790					Attleborough.....	7,577			Stonington.....	7,184		
			2,491	Portsmouth.....	9,827	Burlington.....	14,590			Danvers.....	7,454			Killingly.....	7,027		
Portland.....	36,425	Hampden.....	2,484	Keene.....	7,446	Rutland.....	11,760	Boston.....	448,477	Ware.....	7,329			Putnam.....	6,512		
Lewiston.....	21,701	Freeport.....	2,482	Rochester.....	7,396	Saint Albans.....	7,771	Worcester.....	84,655	Plymouth.....	7,314			Naugatuck.....	6,218		
Bangor.....	19,103	Poland.....	2,472	Somersworth.....	6,207	Brattleboro.....	6,862	Lowell.....	77,696	Leominster.....	7,269			Thompson.....	5,580		
Bideford.....	14,443	York.....	2,444	Laconia.....	6,143	Barre.....	6,812	Fall River.....	74,398	Dedham.....	7,123			Groton.....	5,539		
Auburn.....	11,250	Chelsea.....	2,356	Claremont.....	5,565	Saint Johnsbury.....	6,567	Cambridge.....	70,028	Watertown.....	7,073			Southington.....	5,501		
Augusta.....	10,527	Berwick.....	2,294	Exeter.....	2,284	Bennington.....	6,391	Lynn.....	55,727	Webster.....	7,031			Winsted.....	4,846		
Bath.....	8,723	Windham.....	2,216	Franklin.....	4,085	Colchester.....	5,143	Lawrence.....	44,654	Wakefield.....	6,982			Portland.....	4,682		
Rockland.....	8,174	Lebanon.....	2,209	Lebanon.....	3,793	Rockingham.....	4,579	Springfield.....	44,179	North Attleborough.....	6,727			Plainfield.....	4,584		
Calais.....	7,290	Kennebunkport.....	2,196	Berlin.....	3,729	Montpelier.....	4,160	New Bedford.....	40,733	Palmer.....	6,520			Orange.....	4,537		
Waterville.....	7,107	Winthrop.....	2,111	Gilford.....	3,585	Hartford.....	3,585	Somerville.....	40,152	Athol.....	6,319			Stafford.....	4,535		
Westbrook.....	6,632	Yarmouth.....	2,098	Lancaster.....	3,373	West Rutland.....	3,680	Holyoke.....	35,637	Montague.....	6,296			Branford.....	4,460		
Saco.....	6,075	Lubec.....	2,069	Littleton.....	3,365	Brandon.....	3,310	Salem.....	30,801	Stoneham.....	6,155			East Hartford.....	4,455		
Brunswick.....	6,012	Vassalboro.....	2,052	Pembroke.....	3,172	Randolph.....	3,064	Chelsea.....	27,900	Andover.....	6,142			Birmingham.....	4,423		
Gardner.....	5,491	Oakland.....	2,044	Farmington.....	2,044	Swanton.....	3,020	Haverhill.....	27,412	Blackstone.....	6,138			Torrington.....	4,283		
Cape Elizabeth.....	5,459	Warren.....	2,037	Wolfeborough.....	3,020	Newport.....	3,047	Brookton.....	27,294	Middleborough.....	6,065			Wallingford.....	4,230		
Deering.....	5,353	Tremont.....	2,036	Littleton.....	3,365	Poultney.....	3,014	Taunton.....	25,448	Revere.....	5,668			Huntington.....	4,006		
Oldtown.....	5,312	Buxton.....	2,036	New Market.....	2,742	Derby.....	2,900	Gloucester.....	24,651	Arlington.....	5,629			New Milford.....	3,917		
Belfast.....	5,294	Macbias.....	2,035	Newport.....	2,623	Springfield.....	2,881	Newton.....	24,379	Greenfield.....	5,252			Fairfield.....	3,868		
Skowhegan.....	5,068	Wells.....	2,029	Pittsfield.....	2,605	Middleburg.....	2,793	Malden.....	23,031	Rockland.....	5,213			Hamden.....	3,882		
Eastport.....	4,908	Turner.....	2,016	Derby.....	2,900	Fair Haven.....	2,701	Fitchburg.....	22,037	Westborough.....	5,195			Milford.....	3,811		
Ellsworth.....	4,804	Bluehill.....	1,980	Northfield.....	2,584	Northfield.....	2,584	Waltham.....	18,707	West Springfield.....	5,077			Westport.....	3,715		
Camden.....	4,621	Millbridge.....	1,963	Pittsfield.....	2,605	Northfield.....	2,584	Pittsfield.....	17,281	Grafton.....	5,002			Newtown.....	3,539		
Sanford.....	4,201	Elden.....	1,946	Petersborough.....	2,507	Woodstock.....	2,545	Quincy.....	16,723	Winchester.....	4,861			Glastonbury.....	3,459		
Brewer.....	4,193	Dover.....	1,942	Morrisonville.....	2,331	North Adams.....	2,411	North Adams.....	16,074	Stoughton.....	4,852			Stonington.....	3,420		
Caribou.....	4,087	Winterport.....	1,926	Castleton.....	2,258	Northampton.....	2,396	Northampton.....	14,990	Braintree.....	4,848			Bethel.....	3,401		
Houlton.....	4,015	Jonesport.....	1,917	Enosburg.....	2,163	Chicopee.....	2,399	Chicopee.....	14,050	Franklin.....	4,831			Litchfield.....	3,304		
Fort Fairfield.....	3,526	Standish.....	1,841	Waterbury.....	2,120	Newburyport.....	13,947	Newburyport.....	13,947	Methuen.....	4,814			Seymour.....	3,300		
Fairfield.....	3,510	Port Kent.....	1,826	Barton.....	2,060	Marlborough.....	13,805	Marlborough.....	13,805	Warren.....	4,681			Thomaston.....	3,278		
Waldoboro.....	3,505	Madison.....	1,815	Richford.....	2,041	Woburn.....	13,499	Woburn.....	13,499	Hudson.....	4,670			Farmington.....	3,179		
Deer Isle.....	3,422	Winslow.....	1,814	Brookline.....	2,003	Brookline.....	12,103	Brookline.....	12,103	Provincetown.....	4,642			Suffield.....	3,166		

